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ATMANIRBHAR BHARAT – CATALYSING DEFENCE EXPORTS

In 2021-22, India's defence exports improved with a value of \$1.63 billion, a 54 per cent jump over the previous year. However, the bulk of India's defence exports is equipment of low value. India cannot make a mark as a major arms and defence equipment exporter by selling ancillary items.

THE GLOBAL FIREPOWER ■ MAJOR GENERAL ROHIT GUPTA (RETD) ■ (\$259.49 million) in 2015-16 and ₹9,115 crore (\$1.14 billion) in 2019-20. It is with this background, in 2020, the Indian Government had set a target of ₹35,000 crore (\$5 billion) in defence sector-related export annually, within five years. This was part of the planned ₹1,75,000 crore (\$25 billion) of defence manufacturing. Accordingly, in 2021-22, India's defence exports showed a 54 per cent jump, with a value of ₹12,214 crore (\$1.63 billion), over the previous 2020-21 of ₹8,434 crore (\$1.06 billion).

The bulk of India's principal defence exports is varied weapon simulators, 5.56mm cartridges, bomb suppression blankets, hardened armour plates, helmets, bulletproof jackets, tear gas launchers, torpedo loading mechanism gear, alarm monitoring and control systems, night vision devices, lightweight torpedo and fire control systems, armoured protection vehicles, mortar shell covers, high-frequency radios, and coastal radar systems. Most of this equipment is of comparatively low value, and low volumes and cannot, by itself, sustain a regular and substantial revenue to sustain the industry as an important supplement to internal demand. Additionally, India cannot make a mark as a major arms and defence equipment exporter merely by selling ancillary items.

There have been successful cases of sale of major equipment but very few and far between with a recently reported deal, closed in Sep/Oct 2022, of Pinaka multi-rocket launcher system to Armenia worth about ₹2,000 crore (\$250 million); earlier beating Russia & Poland in the sale of four Swathi weapon locating radars for ₹329 crore (\$40 million); sale to Vietnam of 12 fast attack ocean crafts under an ₹822 crore (\$100 million) credit line.

In January 2022, India could get its first major export order of three batteries of the BrahMos medium-range cruise missiles, from BrahMos Aerospace Ltd Indo-Russian JV to the Philippines for ₹2797 crore (\$375 million). This opens the potential of enlarging defence exports agreement with Vietnam, Indonesia, Malaysia, and Thailand. Interestingly, as per a reported statement by A.D. Rane, Director General BrahMos Aerospace, to out-price its competitors

fourth in terms of its power index with a score of 0.0979 (0.0000 being perfect). In a complete dichotomy of the above statistics, India remains the second largest importer of defence-related products, after Saudi Arabia, impinging adversely on its strategic independence and realising its global economic & military powerhouse potential. Foreign defence procurement stands at ₹50,061 crore (\$6.1 billion) in 2021-22 viz ₹37,030 crore (\$4.5 billion) in 2017-18. Countries, taking advantage of our nascent defence industry, mired in strait-jacket process-based procedures of procurement rather than the result, have thrived on our defence market to their benefit in generating finances to up-grade their defence industrial capabilities as well as create diplomatic leverage for their government. If we look at defence exports, as of 2021, India was the 23rd largest arms exporter in the world with a minuscule 0.2% share in the global defence market.

The value of indigenous defence production for the financial years 2020-2021 and 2021-2022 are ₹84,643 crore (\$10.3 billion) and ₹94,846 crore (\$11.53 billion), respectively. Indian internal demand, by itself, cannot sustain the high cost of Research & Development of high-technology products. Adding to this is the insecurity, in the minds of the developers, of their cost realisation through a product sale as well as, the debilitating timelines of procurement. While a lot has been done to alter the focus, a lot more needs to be done to bring about a feeling of investment security in the defence industry. While this discussion is ongoing, the focus of this article is on Catalysing Defence Exports, with its offshoot benefits of sustaining the investment of the Defence Industry with greater product realisation than feasible through only indigenous absorption.

Trends in Indian Defence Exports & Present Targets

Defence exports had been gradually increasing in preceding years with figures of ₹1940 crore (\$235 million) in 2014-15, ₹2,059 crore



BrahMos cruise missiles have been made indicating the pricing handicap faced by India in a price & technology-competitive defence market.

The main importers of Indian defence arms/equipment during the period 2017-21 were Myanmar (50 per cent), Sri Lanka (25 [er cent) and Armenia (11 per cent). Considering their procurement capacities, these countries are unlikely to sustain Indian Defence exports on a long-term basis. In 2021-22, there is a jump in in-flow from the US largely due to pressure by India on US companies to fulfill offset targets for previously imported equipment. This would decrease once existing offset contracts are completed and the provisions of DAP-2020, with offset obligations levied only on procurements valued at ₹2000 crore and above, materialise in defence imports.

As per the Department of Defence Production, Private Sector contributed 70 per cent and the Government Sector 30 per cent in 2021-22, as compared to earlier years' figures of 90 per cent and 10 per cent, indicating inflexions in India's Defence Industry in accordance with OFB/DPSUs energisation strategy. Only 50 Indian Companies were involved in the defence exports to about 75 countries and a lot needs to be done to enlarge both canvases. To achieve the set target of ₹35,000 crore, defence exports will have to grow at about 40 per cent.

Enabling Measures Instituted by the Government

The path toward enhancing defence exports has been conceptualised by the Defence Procurement & Export Promotion Policy (DPEPP) to start with reforms in processes & policies of defence procurement and enhancing defence production. Enablers enunciated towards this aspect are:

- Procurement reforms in form of a 'positive list to reduce imports and promote indigenous production', project management units, restricting procedures related to trials & testing procedures.
- Optimise resource allocation by setting up a separate head for domestic capital procurement, targets of enhancing domestic production by 15 per cent each year and scrutinising expenditure.
- Investment incentives by enhancing the FDI limit from 49 per cent to 74 per cent on the automatic route and setting up two defence corridors.
- Corporatisation of OFB and dis-investment of DPSUs.
- Indigenisation support to MSMEs with a comprehensive indigenisation policy, setting a target of indigenising 5000 items by 2025, support in form of handholding, subsidies, financial package, and GST relaxations.
- Encouraging Innovation and R&D by setting up iDEX (Innovation for Defence Excellence) portal, incentivising innovators & start-ups, platform for DRDO to share technologies with the private sector for production.
- State-of-the-art Quality Assurance & Testing facilities through the Defence Testing & Infrastructure scheme (DTIS) with 75 per cent Government funding and opening defence testing facilities to the private sector.

To energise the defence export segment, the DPEPP stipulates:

- Pursuing G2G agreements, extending Lines of Credit and direct funding to friendly countries.
- Strengthening & revitalising the Export Promotion Cell established in 2018, which has had less than the optimum effect on exports.
- Export clearance process to be streamlined, transparent, time-bound, and user-friendly.

- Empowering the Defence Attachés (DAs) to interact, explore and facilitate exports in designated countries.
 - DPSUs producing exportable products designated as Export Promotion Agencies with success fee.
 - Mandating that the DPSUs & OFB should focus on and generate a minimum of 25 per cent of the revenue earned from exports.
 - MoD tasked to take on board more Indian companies for discharge of offsets.
 - Drive to showcase Indian products in various global defence expositions.
 - Achievement of the Indian defence industry showcased through Indian embassies and active support of service personnel sought in exploring opportunities.
 - Use of provisions of Open General Licencing to encourage exports through incentivising potential defence exporters.
- Short-listing of 85 types of equipment and 47 sub-systems, for export to the Indian Ocean & African countries, has been carried out. It includes BrahMos Cruise missile, ATAGs, Pinaka MBRL and the Combat Management system.

The Government has brought focus to the planned five big-ticket projects which may pitch both capability building and defence exports to the next stage. The AMCA Fifth Generation Fighter programme presently at about ₹15,000 Cr (\$1.8 billion) looks at developing two technology demonstrators by 2024-25; GTRE planned development of a 110KN AMCA engine in collaboration with either French Safran or UK Rolls Royce with Indian private sector industry & HAL as development partners; HAL planned Indian Multi-Role Helicopter (IMRH) with an outlay of about ₹10,000 crore (\$1.2 billion) planned to take flight by 2029 with initially a foreign engine; and, the Hypersonic Cruise Missile (Project Vishnu) with a range of 2500KM based on the Hypersonic Technology Demonstrator Vehicle (HSTDV) which has recently been successfully tried out.

Challenges in Indian Defence Exports

As per the SIPR report of 2021, 75.9 per cent of Global Arms exports during 2016-20 were by the USA, China, France, Germany, and Russia. The next 14.4 per cent were by Israel, Italy, South Korea, Spain, and the United Kingdom, thus making a 90.3 per cent defence export space for the top 10. Technologically, the first lot of 5, and to some extent, the next 5 countries are far ahead of India in offering a variety of advanced weaponry, ammunition, and associated equipment. Space for India to break in, with its present technology thresholds, is severely limited.

Adding to the above is the global scenario wherein the market of limited countries with substantial budget outlays for the acquisition of arms are already 'captured' by the leading defence exporters. Weaning them away from their established and trusted supplier, as also the much-cited reason, even by India, of familiarity of their defence forces with a particular set of designs, becomes an uphill task. Adding to it, is working through matching own and the geo-political governmental compulsions of various technology and component foreign providers, in a potential export product. Most international equipment comes with 'end-user restriction'. Overcoming these stipulations from the source companies' government can become debilitating.

To compete with the biggest defence exporters of the world, India needs to manufacture high-quality and advanced weapons at competitive and affordable prices followed up by effectual after-sales backup. Our defence technology threshold is far lower than international standards which is evident in the high import contents of indigenous defence products. Even the DAP-2020 acknowl-





PINAKA is one of the successful cases of major defence equipment exported by India

edges this by stipulating 40-50 per cent import content in any of the categories. Any product which has a high percentage of foreign components/technology will be at an obvious price disadvantage. It is not only the imported cost of the components but also its assembly which adds to the overall cost. Also, customising the product to the international buyer's requirement is a problem when a major part of the product is not yours and no viable R&D is available.

Quality control and follow-up support are essential, but competitively prohibitive with high per-capita costs in difficult to operate & sustain equipment sold in smaller numbers. In a budding defence export country, international sale support requiring infrastructure & systems in place is essentially required to build trust amongst potential customers. Establishing this in low-profit realisation is difficult when price advantage is being orchestrated, but essential if a base reputation is to be established.

Measures that would Catalyse Defence Exports

While spare parts, components, and low-cost high-volume products can be the bottom line in sustaining defence exports and establishing the Indian defence industry in the world eco-chain, it cannot by itself pitch India as an exporting country of any reckoning. Firstly, we must be able to produce high technology complete platforms indigenously. Secondly, big-ticket deals can only be done at the governmental level where the orchestration of bilateral equations works.

In this, to enhance our indigenous capabilities it is essential to:

- R&D expenditure has to be ramped up. We fail to even expend the abysmally low allotted budget amount. On the positive side, in Budget 2022-23, for the first time, 25 per cent of the defence R&D budget was reserved for private industry. Defence tech-

nology needs long-term investment since obsolescence with rapidly changing technology is high. With low volumes of sales, the outlay in R&D may not be realised. The private sector needs to be incentivised by firm orders in advance which enables surety of financing and investments in product development including tie-ups with foreign technology providers. The focus needs to be brought into what needs to be developed, eliminating the siphoning off drainers.

- R&D has long gestation periods, the realisation of which is essential but sapping to the exchequer and private industry coffers. To supplement it, to produce advanced equipment some measures are:

- The Strategic Partnership model enables the development of big-ticket advanced weapon systems in collaboration with foreign partners. It's a vehicle to bring in advanced foreign technology, however not much progress has been seen on it with only a floundering P-75I submarine project and a still-in-inception stage FRCV. It needs to be pursued on a larger canvas.
- The concept of the Special Purpose Vehicle (SPV) brings the private industry into the domain of big platforms of Multi-Role Helicopters (IMRH) and Long-Range Unmanned Aerial Vehicles (UAVs). Private industry can now work on its design and development which so far has largely been the domain of the Defence Research and Development Organisation (DRDO). This needs to be expanded.
- Foreign Direct Investment (FDI) in defence, though liberalised by enhancement to 74 per cent on the automatic route, has failed to enthruse foreign investors in any major manner. Data provided by the Minister of State for Commerce &



Industry to Rajya Sabha in December 2023 shows \$3.21 million in the defence sector out of a total of \$62.38 million in the period April to September 2022, 2.36 in 2021-22, 0.63 in 2020-21, 2.20 in 2019-20, 2.18 in 2018-19 and 0.01 in 2017-18 (all figures in million \$). No country will develop/part with its advanced/developing technology unless there is a viable market. Therefore, on this route, we will always develop a product which is a generation or two behind international offers. 74 per cent FDI is not allowed for the Buy Indian (IDDM) route, in which most of the Indian defence procurements are done, restricting the potential sale of the product. Removal of this restriction will clear apprehension in the minds of foreign investors, in cost realisation, which so far has restricted this enabling policy. As an off-take, percolation of technology and quality control will take place through the complete tier 2&3 defence production eco-system, which are also suppliers to the Joint Ventures.

- Indigenisation has its implications which possibly will even out in the long run if correct technological absorption is ensured. We have had a problem in the Transfer of Technology, in this aspect, despite paying heavy amounts of royalty. Attention and accountability are required in this important domain.

To clinch big-ticket projects, it is not sufficient to reach sustenance in indigenous technology. The Government must leverage geo-strategic equations and orchestrate G-to-G and Lines of Credit acceptance by buyer countries. In this:

- Platforms like QUAD, SCO, SAARC, G20, CHG, BIMSTEC, ASEAN, ITU etc must be used to drive exports.
- Our Geo-strategic position and military might with credentials to come to the aid of Indo-Pacific countries, looking for an alternative to China, must be orchestrated as a bargaining tool to displace China as a main exporter in the region.
- The USA needs India as the first responder in the Indo-Pacific region. India with its compulsions of reducing tensions on its Northern & Eastern borders has been 'walking the fence' by not committing to the militarily oriented AUKUS. A call on this account, with negotiated agreements with the USA, would possibly give a fillip to our indigenous defence production capability with the induction of technology and export sharing in a region in which the USA is also a main player besides China.
- We need to establish a Free and Preferential Defence Trade Agreement with 'Friendly' countries and capitalise on Defence Lines of Credit to the fullest.

The complete defence ecosystem must be synergised. To enable this there must be a one-point, periodically updated, automated information bank which has details, including private industry, product manufacture, plans for expansion and requests for technology tie-ups so that useful enabling actions can be carried out by the government towards technology matchups & sharing, identifying & financing, as well as enabling foreign OEMs establishing in India with Indian industry.

Adding to the cost of the product is the time taken for its development. The time-related costs exponentially rise especially when encumbrances are to be overcome with the import of components and the testing for which sufficient infrastructure is not available. The DTIS plan, conceptualised with the aim of modernising the testing and quality control structure in centralised locations, in

sync with international practises, to save cost & time in transportation, has not taken off in any substantial manner. This needs particular attention.

Integration of the government sector with the private industry is essential. To meet production capabilities, additional production lines would be required which cannot be built overnight with respect to technology absorption. While companies like HAL, BEML, BEL, OFB Medak, HVF Avadi, and various government ship-building enterprises have built capabilities over a period, it is largely lacking in the private sector. Rather than re-inventing the wheel, integration through the privatisation of DPSU & OFBs is necessary. Pre-identified private sector partners in the development of key projects, along with relevant government enterprises in which that private sector partner has a stake, and DRDO, will allow synergy to be built up in the eco-system.

While the emphasis is on big-ticket projects which drive export figures to the desired levels, smaller endeavours provide the base on which progress can be made. This concentration must be on:

- Countries can ill-afford to buy new equipment and are always on the lookout for its upgradation. While the OEM is always the best option, Israel for one, has produced an industry which possibly does it better than the OEM. Once desired technology thresholds are attained, becoming a low-cost, friendly substitute to the OEM for overhaul and upgradation can be a revenue-generating ventures. Companies would have to be prepared to establishment in foreign countries and even in conflict zones with the wherewithal to cut down on costs and time.
- Component level repair is a concept in which the equipment is immediately made 'road worthy' through a pool of already repaired components and the defective component is repaired and ploughed back into the pool maintained. It saves on the costs of new components and on the downtime of the main equipment. India, with its competence in re-cycling components to include even high technology ones, already has a large base of expertise at ground level. This capability must be institutionalised and enhanced in its reach.

Lastly, it is important that our own defence forces buy the product and ratify it in field conditions in a timely manner, which helps in its acceptability in the international market. However, if the timelines of procurement are so long that the product is already a generation old by the time it is accepted and inducted into Indian Armed Forces, its acceptability in the international market with competing current technology products will be difficult. Though a lot has been done with the DAP-2020, however, it needs a re-write to change the emphasis from the present time-consuming process-driven endeavours.

To Conclude

India has been able to make progress past the \$1 billion mark in defence exports through its present changes and policy reforms. Henceforth moving up to \$5 billion and beyond will require a more comprehensive approach. A focussed and complete Defence Export Department in the MoD would lend impetus to the endeavours. Synergising technology acquisition with associated product development, military acquisitions, and production also needs prioritisation at the highest level not just to pitch India as a major exporter, but also to maximise the offtake from a defence budget constrained by conflicting budgetary requirements ■

