

# India's Defence Exports Status, Strategy and Solution



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# India's Defence Exports

## Status, Strategy and Solution

India has emphatically embarked on the path of self-reliance and indigenisation in Defence with focus on "Make-in-India." Harnessing potential of the Indian industry, both public and private, along with the technological capabilities, developed by academic and research institutions, is vital for desired expansion of the defence industrial base.

As regards the defence manufacturing, there is a lot of ground yet to be covered in terms of new products development and the scale of production. If the Indian Industry has to rely solely on domestic demand, the industry will have little incentive to invest in R&D and production facilities due to obvious lack of economies of scale as well as low frequency of award of contracts, resulting in reduced probability of winning prospective supply orders and feasibility of under-utilisation of manufacturing capacity. Hence, opening up of exports of defence products was inevitable to give impetus to enhanced participation by domestic private industry in design, development and manufacture of defence products.

The defence exports scenario, both pre- and post-liberalisation has not been encouraging at all. Realising the grim scenario, the Government has, in the past four and a half years, laid considerable focus to encourage export of defence products to friendly foreign countries, with some success.

The paper aims to explore the current state of defence exports, analyse the defence export strategy, dwell upon issues of concern and suggest solutions to enhance effectiveness of the strategy and overcome the current impasse.

### India's Export Controls

Export of weapons and equipment also brings with it a tremendous amount of responsibility in terms of end use by the importer. Ensuring adequate control is one of the requirements to fulfil that responsibility. The defence exports must pass through extensive scrutiny and well-laid-out detailed procedures need to be in place to monitor exports.

The Indian Government has amply demonstrated that it has a policy of responsibly controlling export of sensitive goods. Post-Independence, the Indian approach towards export controls was generally in consonance with

its policy of Non-Alignment. The “export controls” were a contentious issue between India and the Western world in general, and the USA in particular,<sup>1</sup> till the late 1990s. India’s need for technology increased manifold with the opening of the economy in 1991. Post-1998 Pokhran nuclear tests, when sanctions were imposed by USA and several other countries, a more proactive engagement at ministerial level began between India and the USA. Several rounds of talks, between the then US Deputy Secretary, Strobe Talbott, and Planning Commission Deputy Chairman, Jaswant Singh, did generate tremendous amount of interest in the environment. It marked the beginning of a new phase in the Indian engagement with its export control requirements.

All countries are required to maintain export controls as per UNSC Resolution-1540. India joined the Missile Technology Control Regime (MTCR) and became the 35th member on June 27, 2016.<sup>2</sup> On December 8, 2017, India joined the Wassenaar Arrangement and became the Arrangement’s 42nd participating state.<sup>3</sup> Further, in January 2018, India was admitted as the 43rd member of the Australia Group, through a consensus decision.<sup>4</sup> Thus, India is currently member of three out of four major multilateral export control regimes.

The implementation of export controls has four elements, i.e., legal and regulatory mechanisms, licensing, enforcement and private sector involvement.<sup>5</sup> These are discussed as under:

- **Legal and Regulatory Mechanisms.** The Indian regulatory system has adopted elements from legislations all over the world. The Arms Act of 1959 and Explosive Substances Act of 1908, along with the Arms Rules of 1962 helped to shape India’s “Control Framework” for the conventional weapons. We may say that India has made an endeavour to adopt global best practices with respect to export controls.
- **Licensing.** India follows a system for pre-licence screening. The existing rules ensure that an exporter is denied a licence for violating laws such as FEMA (Foreign Exchange Management Act). A number of factors, including “know your customer,” are taken into account before the Government grants the licence.
- **Enforcement.** To implement and enforce its export control laws, India has developed an effective institutional framework. **The Directorate General Foreign Trade (DGFT) is the nodal agency** for implementation of the Export Control System and the licensing of goods in the Special Chemicals, Organisms, Materials, Equipment and Technologies (SCOMET) List.
- **Private Sector Involvement.** Active involvement of the Private sector is an essential prerequisite for effective export control in the country.

The industry needs to understand and ensure rigorous implementation of all export control measures to guard against any probability of errors.

### Export Policy: General

The export of items is governed by **Foreign Trade Policy (FTP)** which is laid down by the Ministry of Commerce and Industry (MoC&I). The policy was earlier known as **EXIM (Export-Import)** Policy and is reviewed every five years. Through the policy, the Government primarily focuses on adopting a twin strategy of promoting traditional and sunrise sectors of exports including the Defence Sector. The Government also intends to simplify the process of doing business through effective implementation of the policy. The current FTP was reviewed and flagged off in the financial year 2015-16, and will remain effective till March 31, 2020. During this period, all Indian exports and imports will be governed by the policy.

The “Handbook of Procedures” contains information for licensing, and is freely available on the Directorate General of Foreign Trade (DGFT) website. **All exports and imports are free, except when regulated.** The export regulation is as per FTP and/or International Trade Commission (Harmonised System) (ITC (HS)).<sup>6</sup> Schedule-1 of ITC (HS) gives the Import Policy while Schedule-2 outlines the Export Policy Regime.

DGFT specifies the list of items under the FTP. The Military Stores which are “Free” to be exported are listed under Schedule-2 of Export Policy. Various military stores, namely, Tents, including their parts and accessories; Engineering Equipment like Bailey bridge, Crash Fire Tenders; jacket combat, web equipment and certain items of general usage; are free for export. The export of Arms and Ammunition; Parts and Accessories thereof; is stipulated in Chapter 93 of the Schedule.<sup>7</sup> Other military goods and components thereof are specified in Appendix 3 of Schedule-2 of Export Policy as Special Chemicals, Organisms, Materials, Equipment and Technologies (SCOMET), export of which is regulated.<sup>8</sup>

### Defence Exports: A Background

A specific export strategy for defence products did not exist till August 2014. In case of defence related equipment, a No Objection Certificate (NOC) was being obtained from the Ministry of Defence (MoD) by DGFT. Certain factors that were considered for grant of NOC are discussed as under:

- Wassenaar Arrangement Munitions List (WAML) was considered as the base, as “defence products list” had not been promulgated by India.
- Comments of stakeholders, including the Defence Forces, on as required basis.

- Approval of the MoD in case of export to friendly foreign countries (FFC).
- Comments of Ministry of External Affairs (MEA) are necessary in cases where export to countries which are included in the restricted/negative list was proposed.

Proposals were being received by the MoD from DGFT for grant of NOC to enable export of various defence products including radars and missiles to friendly foreign countries. No specific guidelines or list of items existed as a database to assist in decision making. In 2014, the Government, in consultation with all stakeholders, took initiative to identify defence items for export and formulate guidelines to assist in grant of export licence. The list of defence items was finalised by the Ministry of Defence (MoD) and promulgated by the Department of Industrial Policy and Promotion (DIPP), MoC&I vide Press Note No. 3 (2014 Series) dated June 26, 2014,<sup>9</sup> whereafter it also became applicable for considering proposals for export of defence products.

Category 6 of the Special Chemicals, Organisms, Materials, Equipment and Technologies (SCOMET) list was vacant till 2017. The DGFT vide Notification No. 5/2015-2020 dated April 24, 2017, notified the “Munitions List” in Category 6 of SCOMET.<sup>10</sup> Populating of the “Munitions List” enabled the domestic industry and potential defence exporters to understand the significance of controls.

**The Government formulated a draft paper titled “Road Map for Self-Reliance and Indigenisation in Defence”** in September 2014 in which several measures were outlined to promote export of defence products. Some of the measures that were considered are discussed as under:

- **Action Plan for Defence Exports.** A comprehensive action plan/framework to encourage defence exports was recommended to be formulated, in consultation with all stakeholders to include the MEA, the Armed Forces, domestic Industry Chambers and the Ministry of Commerce & Industry, to ensure optimum utilisation of capacity of the domestic defence industries, both Public and Private.
- **Export Facilitation/Marketing Organisation.** Set up export facilitation/marketing organisation with the participation of domestic industry to promote exports.
- **Incentives on Taxes/Duties and Concessional Financing.** Issues related to incentives on taxes/duties and concessional financing for exports to be analysed in consultation with the domestic industry and forward necessary proposals to the Ministry of Finance (MoF) and MoC&I.



- **Review the procedure for grant of NOC for export of defence items and make it simple, unambiguous and time-bound.** The review to include the aspect of requirement of End-User Certificate (EUC) and facilitate the industry by issue of one NOC for each contract instead of each consignment, thereby facilitating export by the domestic defence industry. The procedure along with the list of items to be put on the MoD website. The same has since been actioned.

### Strategy for Defence Exports

The strategy for defence exports is intended to give the much desired boost to the “Make in India” initiative in defence while simultaneously consolidating the Indian influence abroad. As the overall Export Policy in the form of FTP already existed, there was no need to have a separate Defence Export Policy. However, **a genuine requirement existed to put in place a specific strategy for facilitating defence exports within the overall ambit of FTP.** The Strategy for Defence Exports was formulated and promulgated, by the Government, in September 2014.<sup>11</sup> The strategy broadly focuses on two aspects as discussed under:

- Export promotion/facilitation.
- Export regulation.

### Export Promotion/Facilitation

- **Export Promotion Body.** Set up a specific export promotion/facilitation body with participation from industry representatives, with its role to include advice to the Government on various export related issues, coordinate all export facilitation schemes of the Government, increase awareness amongst the industry about various export facilitation measures and promotion of exports through specific marketing efforts in targeted countries. It is, however, noted that the export promotion body is yet to be formed even after four years from the unveiling of the defence export strategy.
- **Defence Export Steering Committee (DESC).** This body stands constituted and is headed by the Secretary, Department of Defence Production (DDP)/MoD. The Committee has representatives of the Armed Forces, Defence Research Development Organisation (DRDO), Planning and International Cooperation (PIC) Wing and Acquisition Wings of the MoD, DGFT and MEA. The functions of this Committee include consideration and taking decisions on cases of export permissions which are outside the purview or scope of subordinate authorities/committees. The DESC is mandated to take decisions on export of indigenously

developed sensitive defence equipment, monitor the progress in defence exports and suggest specific steps/strategy to boost exports.

- **Government Support to Defence Exports.** The industry delegations from Public/Private Sector/Joint Ventures (JVs) would be included in bilateral meetings/discussions with friendly countries so that the importing country gets due comfort and confidence while importing defence equipment from India. Indian embassies/missions abroad would be associated in making targeted efforts for promoting export of Indian defence products.
- **Export Financing and Other Incentives.** The measures are discussed as under:
  - Specific incentives and promotion schemes for defence exports may be implemented within the purview of FTP.
  - Line of credit facility available in Ministry of External Affairs to be leveraged suitably, to promote defence exports from India.
  - Possibilities to be explored for financing of defence exports through EXIM Bank, where feasible.
  - A separate strategy to finance exports to financially weaker countries be worked out in consultation with MEA, EXIM Bank, Defence Public Sector Undertakings (PSUs), Private Sector and Financial Institutions.
- **Use of Offset Policy.** The Offset Policy be reviewed and aligned towards **final integration of weapons/systems** in India and promoting export of such systems from India.

### Export Regulation

The measures for effective export regulation are discussed as under:

- **Issue of NOC.** For military stores, NOC is issued by the MoD/DDP. The procedure for issuing the NOC in case of export of military stores was streamlined and placed in the public domain.
- **Online and Time-Bound Clearance.** A system of time-bound clearance for export permissions/NOC was introduced.
- **Export of Indigenously Developed Sensitive Systems.** For indigenously developed strategic and sensitive weapons/platforms, the DESC will take appropriate decisions regarding exportability of item with/without modification or degradation. The export of sensitive items is considered on case-to-case basis and NOC issued with the approval of Raksha Mantri based on recommendations of the DESC.

## **Standard Operating Procedure (SOP) for Grant of NOC for Defence Exports**

On March 13, 2015, the DGFT issued a notification that NOC shall be obtained for export of defence products from the MoD/DDP. Unless prohibited, export of Munitions List items is permitted against an Authorisation issued by the Department of Defence Production (DDP)/MoD. Detailed procedure is provided in SOP for export of Munitions List items for different purposes such as actual export, export for testing and evaluation purposes, participation in tenders/exhibitions, exploring business opportunities abroad and transfer of technology/software. The SOP has been issued by the DDP/MoD vide No. 1(4)/2016-D (EPC) dated May 15, 2017.<sup>12</sup> **The SOP was aimed at streamlining the procedure for grant of NOC to both Public and Private Sector industry.**

A web based system has been developed to enable the industry to apply for NOC “online” and convey the decision to the exporter online. All documents are required to be submitted by the reporter online. The procedure is divided into five parts from Part A to E. Part A deals with NOC for export of military stores as in Appendix-II to SOP. The Appendix-II contains the list of stores that are either complete equipment or sensitive in nature, and therefore require the end-user certificate (EUC) to be signed/ stamped by the Government of end-user/ultimate end-user country/state. All export cases are considered in consultation with all the stakeholders, namely, DRDO, Armed Forces HQ, PIC Wing of MoD.<sup>13</sup> Further, for the Munitions List items under Category 6A010 and 6A011, the comments of Indian Space Research Organisation (ISRO), Department of Space shall be obtained. The cases involving sensitive products are referred to the DESC, headed by Secretary Defence Production (DP) for further consideration. The NOC is applicable for the entire contract/order with initial validity of two years.

The Part B pertains to stores other than Appendix II to SOP, i.e., the stores which are slightly lower in the sensitivity index and hence, comparatively less stringent conditions apply. Normally the Government may not insist that the end-user certificate (EUC) be signed/stamped by the Government of end-user/ultimate end-user country/state. The Parts C, D and E relate to export for exhibition purpose, testing and evaluation and “in-principle” approval for participation in tender/request for proposal (RFP) or exploring export opportunities respectively. In cases where reimport of items exported for exhibition, testing and evaluation is not feasible, the exporter is required to obtain an undertaking from the end-user that the item(s) would not be diverted, sold or transferred to any third party.

**Time-Bound Processing.** The processing of applications for grant of NOC is required to be completed within four weeks for all items listed at Appendix-II of SOP and two weeks for other than items at Appendix-II. Additional two weeks' time may be permitted if the proposal for export falls in the MEA's negative list of countries. The entire procedure has, thus, been simplified and ambitious timeline set to process all export cases expeditiously.

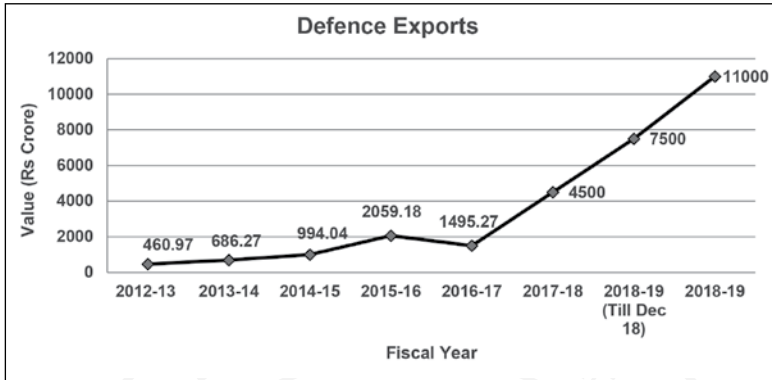
### **Defence Exports: The Trend**

The details available in the annual reports published by the MoD for the past six years suggest that the Indian defence exports have been dismally low, in both value and numbers, till fiscal year 2016-17. Indian export of defence products was limited to merely Rs. 460.97 crore in 2012-13;<sup>14</sup> Rs. 686.27 crore in 2013-14;<sup>15</sup> Rs. 994.04 crore in 2014-15<sup>16</sup> and Rs. 2,059.18 crore (based on NOCs issued) in 2015-16.<sup>17</sup> The value of exports by Defence Public Sector Undertakings (PSUs), Ordnance Factory Boards (OFB) and Private Defence Industry (based on the NOCs issued) for the financial year 2016-17 was Rs. 1,495.27 crore.<sup>18</sup> However, there has been a threefold year-on-year increase in value of defence exports to Rs. 4,500 crore in 2017-18. Due to sustained focus and encouragement to the domestic defence industry, in the fiscal year 2018-19 the value of defence products exports, based on the grant NOCs, was estimated at Rs. 7,500 crore by November 2018<sup>19</sup> and has crossed Rs. 11000 crore for the fiscal year. The share of the sector in the defence exports is as high as 60 per cent as several companies have made exports their focus.<sup>20</sup> The available details indicate that till December 2016, the total number of NOCs issued were 193, out of which 166 NOCs were issued to the Private Sector.<sup>21</sup>

From the trends of the past six years it is evident that the defence exports performance of domestic public and private defence industry has improved significantly, in terms of value, in the last two fiscal years. While streamlining of the licensing procedure and speeding up the process of grant of NOC for export have been responsible for noticeable rise in exports, the positive image that the country has been able to project at the international level has also been a significant contributing factor. Exports are still low, both in terms of value and volume, but there is greater interest among the prospective importers.

A chart depicting growth in value of defence exports is depicted as under:

**Chart I**



Source: Department of Defence Production/Ministry of Defence, “Annual Reports” for period up to fiscal year 2016-17; and *The Economic Times*, January 18, 2019 for fiscal years 2017-18 and 2018-19.

The actual value of defence exports (since fiscal year 2014-15) could be much higher as several products have been de-listed/removed from defence products list, promulgated in 2014, and no longer require NOC from the Government. Many of the de-listed products fall under the aerospace category, dual use defence items and almost two-thirds of the components that were earlier part of the list. The value of defence exports, as indicated above, pertains to only those items that are currently listed as defence products.

As per the data available with the Ministry of Commerce & Industry, Department of Commerce, Export Import Data Bank, the commodity wise export details reveal that, among the listed defence items, the export of “aircraft, spacecraft and parts thereof” has been of significantly higher value, followed by warships and other naval craft/vessels. The export of arms and ammunition has been comparatively low and would need greater focus in future. Further, the share of defence exports, in the overall exports of all items/services by the country, is extremely low; 0.8 per cent in the fiscal year 2017-18 and 0.73 per cent in the fiscal year 2018-19 (till December 2018). The details are tabulated as under:

Table I

Commodity	2017-2018 (Rs. crore)	Share in Overall Exports (%)	2018-2019 (Apr-Dec) (Rs. crore)	Share in Overall Exports (%)
Arms and Ammunition; parts and accessories thereof <sup>22</sup>	637.59	0.0326	580.72	0.0341
Other vessels, including Warships and lifeboats other than rowing boats <sup>23</sup>	452.59	0.0231	2,670.69	0.1570
Aircraft, Spacecraft and parts thereof <sup>24</sup>	14,609.28	0.7467	9,215.30	0.5416
Total Value	15,699.46	0.8024	12,466.71	0.7327

Source: Ministry of Commerce & Industry/Department of Commerce/Export Import Data Bank.

The above commodities also include certain items that were de-listed and no longer form part of the defence products list, hence, the difference in total value of exports between figures quoted by the Ministry of Defence and the Ministry of Commerce & Industry.

### Where Does India Stand among Defence Exporters?

Traditionally, defence exports have never been a focus area of successive Indian Governments. In 1991, the Indian defence exports were virtually negligible and as per Arms Trade data maintained by SIPRI, India stood at a lowly 40th position.<sup>25</sup> Even small countries like Romania, Chile, Pakistan, Singapore, Kenya, Belgium, Iran and Lebanon exported more defence products (by value) than India. Barring the year 2000, in which there was a minor surge in defence exports, the overall performance was dismal, with India still retaining its 40th position among 86 arms exporting countries in the world, in the year 2001. In the next decade, from 2001 to 2011, India did not make any noticeable progress in the field of defence exports. In 2011, India stood at the lowly 37th rank, among 74 exporting countries, with a miniscule share of 0.01 per cent in the overall global arms trade. However, **with the promulgation of strategy for defence exports and streamlining of the SOP for grant of NOC for exports, there has been a slow but consistent improvement in the global ranking of India with respect to defence exports.** Noticeable progress was witnessed in Indian defence exports in the period from 2014 to 2018. In 2017, India ranked 25th with

a share of 0.18 per cent, while in 2018 India's rank was 24th among 54 defence products exporting countries with a share of 0.17 per cent in the global arms trade. The overall performance, in defence exports, in the five years from 2009 to 2013 was abysmal with its share at 0.04 per cent, which improved to 0.15 per cent for the five-year period from 2014 to 2018. The details indicating India's defence exports, based on trend indicator values (TIV) accorded by the SIPRI, for various years since 1991 are placed as under:

**Table 2**

Year	Arms Export TIV (millions)*	Position (as per TIVs)	Share in Global Arms Exports (%)
1991	0	40	0
2000	21	23	0.11
2001	2	40	0.01
2011	3	37	0.01
2012	0	57	0
2013	14	33	0.05
2014	36	25	0.13
2015	42	25	0.15
2016	42	30	0.13
2017	56	25	0.18
2018	46	24	0.17

\*Source: SIPRI "arms trade data," maintained till 2018, at <http://armstrade.sipri.org>. Value less than 0.5 million TIV is indicated by "0". The TIVs, used by SIPRI, are based on the known unit production costs of weapons and represent the transfer of military resources rather than the financial value of the arms transfers.

In the field of arms exports, for the year 2018, United States remains the clear leader with 39.09 per cent share, followed by Russia (23.23 per cent), France (6.41 per cent), Germany (4.63 per cent) and Spain (4.31 per cent). Taking into account that even small countries namely Netherlands, Turkey, Switzerland, Norway, Czech Republic, Sweden, South Africa, Ukraine, UAE and Finland are performing better than India in arms exports, the Government and Indian Defence Industry would have to enhance focus on defence design, development, manufacturing and marketing to improve our defence exports performance in the next decade.

**Prominent Defence Exports.** It is noted that about 15-16 companies in the private sector have contributed to defence exports. Some of the

major export destinations for defence products have been Italy, Maldives, Sri Lanka, Russia, France, Nepal, Mauritius, Israel, Egypt, UAE, Bhutan, Ethiopia, Saudi Arabia, the Philippines, Poland, Spain and Chile, etc. The defence items being exported include Personal Protective items, Offshore Patrol Vessels, ALH Helicopter, SU Avionics, Bharati Radio, Coastal Surveillance Systems, Kavach Mod II Launcher and Fire Control System, Spares for Radars, Electronic Systems and Light Engineering Mechanical Parts, assemblies and sub-assemblies, etc.

Some of the prominent exports of Indian defence products to friendly foreign countries are listed as under:

- **Aircraft.**
  - Two maritime patrol aircraft (Do-228MP) to Seychelles, one each in 2013 and 2015.<sup>26</sup>
  - Two civil model Dhruv Helicopters to Peru, seven Dhruv Helicopters to Ecuador (later withdrawn following accidents).
  - Three Chetak Helicopters to Surinam have been exported. Two Chetak helicopters were handed over to Mauritius in 2016.<sup>27</sup>
  - Three Cheetal helicopters to Afghanistan in 2015 and one Dhruv to Maldives in 2016.<sup>28</sup>
  - Helicopters have also been exported to Namibia.
- **Avionics.** Select avionics have been exported to Malaysia for Sukhoi Su-30MKM, a super manoeuvrable fighter aircraft of the Royal Malaysian Air Force.
- **Small Arms.** Indian Small Arms System (INSAS) assault rifles to Oman and Nepal.
- **Naval Craft.**
  - A 1300 ton, Offshore Patrol Vessel (OPV) MCGS Barracuda was exported to Mauritius, in December 2014.<sup>29</sup> This was the first ever export of a home built warship. One OPV has also been exported to Sri Lanka.
  - One Fast Patrol Vessel and 11 Fast Interceptor Boats manufactured by Goa Shipyard were exported to Government of Mauritius.<sup>30</sup>
  - One Damage Control Simulator manufactured by Goa Shipyard for Myanmar Navy ahead of contractual schedule.<sup>31</sup>
  - MCGS Guardian, constructed at Goa Shipyard in India, was exported to Mauritius in 2016.<sup>32</sup>
  - Refurbished boats and OPV have also been exported to Sri Lanka.
  - Four patrol crafts exported to Vietnam in a US\$ 100 million deal.<sup>33</sup>
- **Torpedoes.** India exported indigenously developed lightweight torpedoes worth US\$ 37.9 million to Myanmar.<sup>34</sup>



- **Sonars.** Three HMS-X2 ASW Sonars have been exported to Myanmar in 2015.<sup>35</sup>
- **Vehicles.**
  - Ambulances to Kenya, high-powered trucks to the Thai army as well as mobility solutions for the UN Peacekeeping Force were exported by Ashok Leyland.<sup>36</sup>
  - Two Mahindra Rakshak Armoured Vehicles and one Mahindra Rapid Intervention Vehicle were exported to Guyana Police Force.
- **Personal Protection Gear.** The Indian Private industry has made a name for itself by export of Bullet Proof Jackets (BPs) and Bullet Proof Helmets (BPHs) offering various levels of protection to many friendly foreign countries. Over 230 forces globally use the protection gear manufactured by the MKU Limited which is a Kanpur based Indian private defence company.<sup>37</sup>
- **Simulation Systems.** Simulation systems have been exported by the ARI Simulation to US, UK, South Korea and Japan.<sup>38</sup>
- **Radars.** Three air search radars (naval) to Myanmar in 2016. One maritime patrol aircraft radar (EL/M-2022) to Seychelles in 2015.<sup>39</sup>
- **Components.**
  - Ordnance Factory Board bagged the biggest export order by value for military hardware worth Rs. 232 crore, in September 2017. Supply of 40,000 pieces of a component used in Bofors artillery guns was carried out by the OFB.<sup>40</sup>
  - Assemblies, sub-assemblies and components of various defence equipment including radars and aircraft are also being exported by certain domestic defence companies.

**Potential Defence Export Products.** Over the years, Indian defence industry has produced certain modern defence systems that have significant export potential, in case due focus is accorded. Some of the products are listed as under:

- **BrahMos Missile System.** Both surface and air-launched versions.
- **Pinaka Multi-Barrel Rocket Launch (MBRL) System.**
- **Tejas Fighter Aircraft.** Post-completion of requirement of Indian Air Force.
- **Helicopters.** Advanced light helicopter (Dhruv), light combat helicopter (LCH), Cheetal helicopter.

- **Naval Craft.** ASW Corvette, Advanced OPV, Warships, patrol boats, interceptor boats, landing craft utility (LCU), torpedoes, sonars, floating docks, and various other craft/systems.
- **Akash Air Defence System.** Post-completion of requirement of Indian Armed Forces.
- **Radars.** Weapon locating radar, 3D low-level lightweight radar (Aslesha), central acquisition radar, surface surveillance radar, battlefield surveillance radar, etc.
- **Artillery Guns.** Dhanush, Advanced Towed Artillery Gun (ATAG) System, Vajra Self-Propelled Gun System, Bharat-52 (155mm/52 Calibre Light Weight Gun).
- **Anti-Tank Missile** (Milan 2T).
- **Mine Protected Vehicle** (MPV).
- **Bridging System.** Pontoon Bridge System, Sarvatra Bridging System.
- **Communication and electronic warfare equipment of various types.**

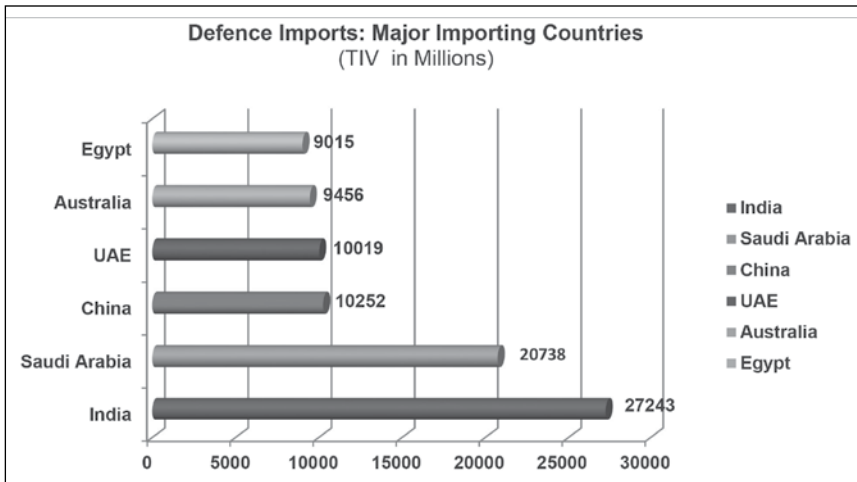
Many friendly foreign countries, namely, Israel, Russia, UK, USA, France, Vietnam, Thailand, UAE, Myanmar, the Philippines, Malaysia, Brunei, Singapore, Sri Lanka, Nigeria, Turkey, Afghanistan, Maldives, certain African and Central Asian countries have, in the past, expressed interest in various complete systems as well as certain assemblies, sub-assemblies and components manufactured in India. Efforts would need to be made to focus on these and other friendly countries for giving much needed fillip to defence exports, both in volume and value.

### **Import Versus Export: The Imbalance**

With sixty percent of India's capital acquisition needs being met through "imports," the country emerged as the biggest importer of defence equipment in the world, accounting for 12.77 per cent of all global arms transfers in the world for the seven years period from 2011 to 2017.<sup>41</sup> The cumulative Indian arms imports, for the same period, were more than the combined total of the next two biggest importers, namely, Saudi Arabia (8.37 per cent) and UAE (4.25 per cent).<sup>42</sup> As per the data released by the Stockholm International Peace Research Institute (SIPRI) on March 11, 2019, India's arms imports reduced significantly for the years 2017 and 2018. India was ranked 2nd behind Saudi Arabia for 2017, while for the year 2018 the import ranking fell to 4th behind Saudi Arabia, Australia and China in terms of share in global import of arms, thus exhibiting reduction in defence imports.

The reduction in arms imports is, however, largely attributable to reduced rate of capital acquisition and not due to indigenous production. It is noted that the overall Indian arms imports for the eight-year period from 2011 to 2018 accounted for 11.75 per cent, which is still the highest in the world. A chart depicting defence equipment imports, for the period from 2011 to 2018, by India and other major importing countries is as under:

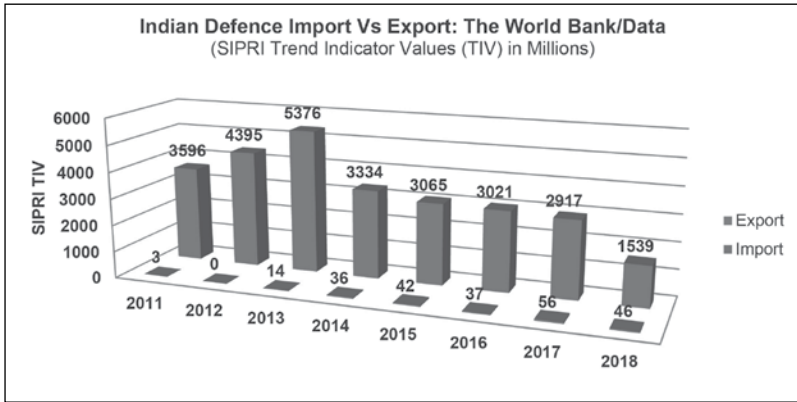
**Chart 2**



Source: SIPRI "arms trade data," maintained till 2018; available at <http://armstrade.sipri.org>.

The cumulative arms exports from India for the same period (years 2011 to 2018) accounted for merely 0.1 per cent of the overall global arms exports.<sup>43</sup> A comparison of the Indian defence imports versus exports, as per the World Bank/Data,<sup>44</sup> based on SIPRI (trend indicator values) is depicted in the chart as under:

Chart 3



Source: SIPRI “arms trade data,” maintained till 2018; available at <http://armstrade.sipri.org>.

It is clearly evident that the defence import versus export ratio of India is highly skewed. The import-export ratio for 2011 stood at 1199:1, for 2013 the ratio was 384:1, while for 2014 it was 93:1. Some progress was achieved in the five years period starting from 2014 onwards, as the import-export ratio for 2015 was 73:1, for 2016 it was 82:1, for 2017 the ratio was 52:1 and for 2018 the ratio stood at 33:1. The import-export ratio of India, though improving over the past few years, is still abysmal, being inferior to many countries which have much smaller defence industrial base.

### Steps Taken by the Government to Boost Defence Exports

The draft Defence Production Policy, 2018, has set a target of US\$ 5 billion in defence exports by 2025. The Government has initiated various measures to achieve this highly ambitious target. Some of the steps taken by the Government are discussed as under:

- Scheme for Promotion of Defence Exports.** A scheme for promotion of defence exports has been launched by the Government in October 2018.<sup>45</sup> **The scheme definitely provides various options to the prospective defence exporters to improve marketability of their products globally.** In a procurement case by own Armed Forces if more than one vendor is technically qualified, the scheme proposes to create a mechanism to issue relevant certificates for the product to qualified vendor(s) stating “Fit for Indian Military use,” which would help in marketing by the vendor. In another instance, if a product is not required by the Indian Armed Forces but is proposed to be exported by the vendor, the scheme would provide the exporter/manufacturer

the testing facilities of the MoD and subsequent field trials. SOPs for use of test facilities by domestic private defence industry on payment have been finalised by the Armed Forces and other Government agencies. The DDP/Government would also notify internationally accredited labs where testing can be done by the vendor. The issue of certificates under both the options will be done post field evaluation trials by the DGQA, DGAQA, DGQA (N) and other agencies notified by the DDP/Government.

- **Permission to Export up to Ten Percent of Production.** As per the existing guidelines, up to ten percent of the annual production of Defence PSUs and OFs can be earmarked for export.
- **Time-Bound Issue of NOC for Export.** The issue of NOC permitting export of defence products by domestic defence industry, both public and private, is carried out in a time-bound manner, in consultation with all stakeholders. As the process is web based, the human interface is reduced to minimum, which is indeed a welcome step.
- **Obtaining End-User Certificate (EUC) by the Exporter.** The process has been made simple, without compromising export control measures, in the revised SOP. The EUC is now required to be obtained from the Government of the importing country in case of Part A, i.e., sensitive munitions list items listed in Appendix-II to the SOP; while for the other defence stores the EUC is normally required from the ultimate end-user and not from the Government of the end-user. This has made the procedure less complicated for the prospective exporters of defence equipment.
- **Creation of Defence Export Steering Committee (DESC).** The DESC headed by the Secretary Department of Defence Production (DDP) established by the Government in 2014, is functioning effectively. A standing committee under the Joint Secretary Defence Industries Promotion (JS DIP) with representation of all stakeholders including the Armed Forces and DRDO, makes speedy recommendations on all export proposals, less export of sensitive equipment which are referred to the DESC.
- **Industrial Licensing.** The process of obtaining an industrial licence for design, development and manufacturing of defence items has been refined and made simple, which makes it easier for domestic private companies to enter the Defence Sector. Nearly two-thirds of the items have been made licence-free, especially on the component side. The Government has already issued more than 350 industrial licences to the private companies since the defence sector was opened for private industry participation in 2001.<sup>46</sup>

- **Green Channel Policy.** In March 2017, the Government instituted a mechanism for award of Green Channel status to firms having predefined financial and quality credentials.<sup>47</sup> The status would apply to broad categories of items having continuous requirement/mass consumption in the Defence Forces. The firms would be granted the Green Channel Status for a period of five years from the date of issue or renewal and would need to give irrevocable bank guarantee of Rs. 50 lakh. Such firms will be able to self-certify their products and would take full responsibility for the quality of their products. This is a laudable step and has contributed in promoting “Ease of Doing Business.” The step would assist domestic defence industry to enhance manufacturing and export defence products to friendly foreign countries too.
- **Transfer of Technology (ToT) for Productionisation.** The Government has taken initiative to permit ToT to the domestic private defence industry for productionisation. It was overwhelmingly agreed by most think tanks and various stakeholders that the role of DRDO should primarily be focused on research and development, while the productionisation should be carried out by the Public and Private industry. The positive act has resulted in enhanced production of various defence products within the country. For instance the ToT for Bullet Proof Jackets was given by the DRDO to MKU Ltd., which has helped the company to increase their range of solutions and offerings especially for the Indian Army, and the company can plan to use this technology for further R&D to develop newer solutions.<sup>48</sup>

### **Role of Armed Forces**

Proposals for grant of NOC for export of defence products are referred by the MoD for obtaining comments of all stakeholders including the Armed Forces. **Invariably all proposals for export of in-service weapons/equipment**, less items of insignificant nature, are considered with great deliberation, and comments forwarded within the stipulated time frame.

In general, positive recommendation, in more than 90 per cent of the cases to export indigenous defence products to foreign countries, has been the hallmark of the Armed Forces. The recommendations are, of course, subject to fulfilment of all conditions stipulated in relevant regulations.

The Armed Forces have also placed integrated project monitoring teams (IPMTs), consisting of qualified officers and men, with certain Defence Public Sector Enterprises for better coordination and monitoring of development and production of specific weapon systems and equipment under various projects.

The Armed Forces have, thus, amply displayed overwhelming support to the domestic defence industry in its efforts to become part of the global supply chain by encouraging export of indigenously manufactured defence products.

### Issues of Significance

Certain issues of significance are discussed as under:

- **Risk of Non-Licensed Trade.** A limited risk of private defence industry engaging in non-licensed trade exists as the Indian Industry becomes more decentralised and responsive to market forces. As increased number of companies get into manufacturing of proliferation-sensitive technology, especially in case of missiles and weapons platforms, stringent application of export control norms would be essential.
- **Need for Checks and Balances.** Some of the companies may not strictly comply with the laws. As increased number of Private companies design, develop and manufacture sensitive defence products, any possibility of **supply of sensitive goods to entities of concern, has significant potential to affect India's security and reputation.** An undesirable incident can adversely impact the willingness of foreign OEMs to collaborate with Indian businesses and carry out ToT for modern weapons and equipment. Hence, **suitable checks and balances, without complex procedural and frustrating bureaucratic delays, need to be put in place.**
- **Proliferation Challenge.** The proliferation or transfer of intangible technologies (know-how) will be a challenge. Monitoring of sensitive technology by the Government will be inevitable in the national interest.
- **End-User Certification.** End-user certification, verification and review, on as required basis, would be essential. For this sufficient number of technical review personnel would be needed. There is a distinct possibility of exported stores ending up in undesirable hands in a foreign land. Hence, a mechanism should be evolved to certify the end-users without creating hurdles in the export of defence equipment and munitions.
- **Challenge for the Licensing and Enforcement Authorities.** With increased participation of Private Industry in defence manufacturing, the proposals for export of defence products are also likely to witness an increasing trend. A noticeable increase in defence exports has already been seen in the last five years. This trend will present a significant challenge in future for the Indian Licensing and Enforcement authorities.
- **Focus on Small and Medium Enterprises (SMEs).** The SMEs often express concerns that they do not receive as much attention as

the larger companies. The establishment of Defence Investor Cell, an online cell, created by the Government in 2018 that acts as a guide to get information and understand issues, etc.,<sup>49</sup> has been a positive step. The cell has to a certain extent assisted the SMEs to enter the field of defence manufacturing. The contribution of SMEs to defence production has grown by 200 per cent in the last four and a half years,<sup>50</sup> till December 2018. Though progress is visible, yet focused efforts need to be made to ensure that the **SMEs do not get marginalised** due to bigger players entering the Indian Defence Production Sector.

- **Cap of Ten Percent of Production for Export by Defence PSEs.** The current stipulation placing **the cap on exports up to 10 per cent** of annual production, by Defence PSUs and Ordnance Factories, **clearly indicates that**, as far as the Defence PSEs are concerned, **the exports are not driving the capacities but the capacities are driving the exports.** The cap had to be placed by the Government because many of the Defence PSEs are not able to meet the contracted timelines for the orders that are already placed on them by the Indian Armed Forces.
- **Intellectual Property Rights (IPR) Issues.** Indian defence industry has been manufacturing some modern weapon platforms under licence from the OEMs. Some of the modern and proven weapon platforms that are “Made in India,” such as the Su-30 MKI fighter aircraft and Tank T-90 are licensed productions with IPR held by foreign OEMs. The BrahMos Missile has been jointly designed, developed and manufactured by India and Russia. Hence, a proposal for export will require the approval of BrahMos Board. The IPR issues need to be resolved with the exporting countries/OEMs after which export to the friendly foreign countries can be undertaken by India.
- **Pricing and Technology Issues.** The Indian Defence Industry, especially the Private Industry, has just found a foothold in the Defence Sector. Due to lack of well-established processes and infrastructure, the domestic defence industry suffers from disadvantages in terms of less competitive price and lack of high technology. Low productivity is the bane of most PSEs, leading to higher per unit cost making the end product costlier and thus, less attractive to the prospective foreign buyer. Additionally, Indian defence industry has very few high-technology, state-of-the-art weapon systems/equipment for export. Akash Air Defence Missile System, Dhanush Artillery Gun, BrahMos Cruise Missile, Advanced Light Helicopter, Pinaka MBRL and a few naval craft are some of the modern technology systems that can be considered initially for export to friendly foreign countries.



However, the canvas of high-end technology weapons and equipment needs to be expanded for enhancing exports in future.

- **Quality Issues.** Achieving desired quality has been a challenge for many defence firms. Several ammunition accidents in the past few years and a few accidents of artillery gun barrels bursting during the field firing at ranges indicate the dire need to ensure stringent quality controls. Quality parameters, namely, accuracy, reliability, consistency and maintainability achieved by indigenous weapons and equipment must meet the desired General Staff Qualitative Requirements (GSQRs) indicated by the Armed Forces. As Indian products achieve global quality standards and come at a good value, prospective buyers will exhibit greater interest in Indian weapons/equipment.
- **Opacity of the System.** Arguably, the biggest challenge for the industry working in the defence sector is the opacity of the system. Once a proposal for industrial licensing or export of a defence product is submitted online, the vendor does not know what is happening to the proposal when it is under consideration in the chain of decision making, at times, till it is finally disposed. No doubt, there is far more openness, willingness to share information, collaborate and work with each other in the past five years, but transparency in the true sense will need much more initiative on part of the Government, especially the bureaucratic chain.
- **Identification of Target Countries.** Indian defence exports mainly consist of personal protective equipment, namely, bullet proof jackets and helmets; offshore patrol vessels, radars, helicopters, components and assemblies of aircraft/helicopters. The export is mainly focused on assemblies, sub-assemblies and components of military equipment and not on the complete weapon platform/equipment. This makes it difficult to carry out profiling of items, weapons/equipment and establishing a pattern about target countries which inhibits aggressive export marketing efforts. Approaching the potential buyers, thus, remains a challenge and hinders defence export efforts.

### **Implications of Enhanced Defence Export**

The Strategy for Defence Exports is likely to have certain noteworthy implications for the country, as discussed under:

- **Enhanced Military Cooperation.** Defence products exports will contribute to strengthening diplomatic and economic partnerships and simultaneously lead to enhanced military cooperation. Besides, such exports have the potential to open the doors for strategic partnerships that are of mutual benefit to the partners. Indian assistance to modernise the Vietnam military is an example of successful military cooperation.

- **Permit Part of Production for Exports.** A guideline was laid in 2015 to permit up to 10 per cent of the production capacity of Defence Public Sector Enterprises for export to FFCs subject to fulfilment of all applicable conditions as per extant rules. This is likely to encourage export of indigenously produced equipment, namely, Advanced Light Helicopter, Akash Surface-to-Air Missile System, various air/naval craft and other weapon systems/equipment.
- **Strategic Control on Export of Strategically Significant/ Important Weapon Systems.** The weapon systems like the Brahmos Cruise Missile that have greater strategic significance may be considered for export only to select partners. **In export of strategic weapon systems, the Government must retain Strategic Control, in the larger national interests.** The defence products that are categorised as “not sensitive items” like Night Vision Devices, Bullet Proof Jackets and Helmets, Simulators of various types for training, parachutes may, however, be exported to a wide range of countries.
- **Export of Highly Sensitive Communication, Secrecy and EW Equipment.** Export of Weapon Locating Radars, Target Acquisition Radars, Secrecy Equipment, Communication Systems and Electronic Warfare Equipment has the potential to undermine the optimal utilisation of such systems by own Armed Forces. Export of such highly sensitive and classified equipment needs to be accompanied by fulfilment of a mandatory condition that the Frequencies and Algorithms of the subject equipment will not be shared. The information regarding the frequencies and algorithms being used, technology applied in various sub-systems and other highly sensitive technical data (as applicable), must not be parted with and must not reach the adversaries.

### The Way Forward

With a view to further enhance the value and quantum of defence exports, certain measures as discussed under are recommended to be undertaken:

- **Export of In-Service and Indigenously Developed Weapon System/Equipment.** With respect to permitting export of equipment that is already in service or contracted, the following is recommended to be considered:
  - Top priority should be accorded to meet the requirements of the Indian Armed Forces as per contracted timelines.
  - **For those defence products where contracted timelines are not adhered to by the company, a cap of 10 per cent may be imposed.** However, in cases where the designated timelines

for supply are honoured, there should be no cap on the quantum of weapons/equipment for export to friendly foreign countries.

- Export of a new weapon system/equipment must not impact induction schedule, if applicable, of the same into the Indian Armed Forces.
- **Capacity enhancement**, especially in case of select Defence PSUs where large quantities are outstanding against supply orders, **should be expedited**. Spare capacity is going to be a key consideration in arriving at a decision to finally export any indigenously-developed system to a potential buyer.
- Earmarking a fixed capacity for export is difficult for the shipbuilding industry. In this and other such similar categories the percentage of production capacity for export is recommended to be decided on case-to-case basis.
- **Export of Sensitive/Classified Equipment.** For sensitive/classified and/or unique equipment, export of which may, in all likelihood, have significant implications on matters of national security, certain special measures need to be instituted. **Sensitive equipment would be primarily related to emitters and receivers of electromagnetic radiation which may be susceptible to jamming or interference if the wave-forms, algorithms and frequency characteristics are known to the adversary.** Certain measures could be considered in such cases as discussed under:
  - The equipment may be suitably modified prior to export, as per specifications of the importing country. Significant down-gradation, is however, not recommended.
  - An independent **central agency, headed by a senior officer from the armed forces, should be instituted** for scrutiny of cases pertaining to proposed export of in-service or newly inducted radars, electronic warfare equipment, secrecy equipment and communication equipment.
  - The DRDO, Defence PSUs and Private Company, as applicable should certify the modifications made/proposed to be made to the equipment intended to be exported, to safeguard own security interests.
  - In order to institutionalise the above, a central committee at HQ IDS is recommended to be established.
- **Quality Assurance.** The standards of quality to include **consistency, reliability, safety and maintainability** are a prerequisite for gaining a foothold in the international market for defence equipment. If the weapons, equipment and munitions manufactured by domestic Private Sector, Defence PSUs and Ordnance Factories are able to meet qualitative

requirements expressed by the Indian Armed Forces, then the industry would be well-placed to market their products to friendly foreign countries successfully. Indian industry needs to imbibe the culture of high qualitative standards for venturing into export-oriented production. Export of ALHs to Ecuador is a case in point, wherein the image of the country was adversely affected due to quality issues.

- **Joint Ventures (JVs).** Currently, more than 50 JVs have been formed between foreign OEMs and Indian companies. Some of these are already manufacturing assemblies and components as part of the global supply chain. The **tie-up between Defence Public Sector Enterprises (PSEs), Foreign OEMs and domestic Private Industry for manufacture and subsequent export** of the complete weapon system/equipment **has greater chances of success** in the highly competitive defence export market. It is strongly recommended that the reach, agility and flexibility of the reputed, listed companies of domestic Private Sector be harnessed, by facilitating them to lead in JVs as they are better placed to cater to and exploit the international market.
- **Hand Holding by the Government.** The Indian private defence industry needs full support from the Government. Bureaucratic delays should become a thing of the past, while cooperation from the DRDO and defence PSEs should be readily forthcoming to enable the private sector to step up investments, enhance manufacturing capacities and be able to contribute to export defence products to friendly foreign countries.
- **Establishment of Export Oriented “Model Manufacturing Plants” by Select Defence PSEs.** Select Defence PSEs should be encouraged to establish model, state-of-the-art manufacturing plants for defence products exclusively for export. The end product must be produced by following best practices in the industry, making it competitive to the product of Foreign OEMs in the world market. Initially emphasis may be laid on manufacture of assemblies, sub-assemblies and components and gradually they can move on to design, development and manufacturing of complete equipment. This would facilitate to get a foothold in the international defence export market.
- **Consortium Approach.** Adopting a consortium approach for research/ design, development and manufacture of complete equipment and munitions for export, much on the lines of Brahmos Aerospace Venture is likely to yield better results. High quality and state-of-the-art weapon systems, equipment and munitions produced by adopting a consortium approach will in all likelihood boost the production and export by the Indian defence industry and will also be more acceptable to prospective buyers.

- **Defence Diplomacy.** The initial growth in defence exports has been mainly due to streamlining of process of grant of NOC for export to foreign countries besides various measures aimed at enhancing ease of doing business. However, to reach the goal of defence exports worth US\$ 5 billion, India would need to focus on reorienting of diplomacy and channelling efforts for securing defence contracts for the indigenously manufactured weapon systems. It is common knowledge that intricate linkages exist between defence exports and defence diplomacy. It would, thus, be prudent to consider inclusion of defence officers in the official delegations to friendly foreign countries. The representation of defence forces in delegations aimed at defence diplomacy is likely to accrue certain significant advantages as discussed under:
  - Enhanced comfort level, understanding and confidence building with defence/security establishment of the importing country during bilateral discussions/meetings.
  - Availability of professional expertise and advice on all military matters that may be discussed during various meetings including issues related to interoperability.
- **Export Promotion/Facilitation Agency.** The agency should be set up at the earliest in accordance with the defence export strategy. The agency should have the mandate to monitor actual progress of exports vis-à-vis planned targets. The agency should have sizeable and adequate representation from the Defence Forces, to consist of highly professional officers in their respective domains.
- **Defence Exhibitions.** Certain Indian companies also participate in various Defence Exhibitions organised in friendly foreign countries. There is participation of the members of Defence Exhibition Organisation/ MoD. However, any significant presence of the Defence Forces in such exhibitions has not been noticed. Suitable representation of the Defence Forces by select professionally expert officers, in Defence Exhibitions held in friendly foreign countries, is recommended to lend desired level of credibility to Indian participation in such exhibitions/expos.
- **Export Financing.** Enhanced allotment of funds in **defence “Line of Credit”** for certain friendly countries may be considered. India has in the past extended US\$ 500 million defence credit line to Vietnam in September 2016,<sup>51</sup> to facilitate the purchase of critical defence equipment manufactured by Indian defence industry. The line of credit must not, however, adversely impinge upon the defence budget. Separate budget for the proposed line of credit may be considered by the MoD in consultation with the Ministry of Finance.

- **Enhance Role of Defence Attachés. The Defence Attachés should be encouraged to promote defence exports.** The Indian Navy has been instrumental in securing warship exports in the Indian Ocean Region through the understanding it has cultivated with friendly countries in the region. Export of HMS-X2 Sonar to Myanmar is a successful example that can be emulated.
- **Defence Specialists' Cadre.** The Ministry of External Affairs (MEA) has a significant role in the promotion of defence exports. Certain Armed Forces officers are indeed posted on deputation to the ministry. However, MEA does not have specialists on defence matters in its cadre. There is thus a case to consider building a cadre of specialists, focused on defence matters in the ministry.
- **Institutionalised Interaction between Government and Private Industry.** Enhanced and institutionalised interaction between Government and Private Industry is recommended for a more effective implementation of the Export Control Policy. **An institutionalised communication channel between the Government and Private Industry for issues related to national and international export controls and security risks is strongly recommended.**
- **Incentivise Defence Exports.** Defence products that are exported should be completely exempted from duties and taxes to make them price competitive. The exemption may be implemented on the quantity for which the NOC for export is granted by the MoD and MEA, where required. Components, sub-assemblies and assemblies that were de-listed from the defence products list, should also be included in the list of items exempted from taxes for the purpose of exports.
- **Encouraging Outreach Activities.** The Government needs to consider encouraging business associations like CII (Confederation of Indian Industries), FICCI (Federation of Indian Chambers of Commerce and Industry), ASSOCHAM (Associated Chambers of Commerce) and PHDCI (Punjab, Haryana and Delhi Chambers of Industry) in becoming active in outreach activities. **Certain Indian companies may also join foreign companies to enhance their understanding of export control laws** and know their responsibilities.

## Conclusion

India is nowhere in the reckoning as far as defence manufacturing and exports are concerned. It is also a proven fact that the Defence Sector requires heavy investments (for establishing production lines, carrying

out R&D), considerable patience to remain entrenched till the contracts begin to be awarded and the returns on investments become a reality. As there are few end-users, namely, the Defence Forces and Central/State Armed Police Services, the domestic defence industry cannot survive without exports. Focus on defence exports should continue to be high on the Government agenda. India's help in modernising the militaries of friendly foreign countries will not just strengthen the diplomatic and military bond between India and the importing countries but also open the doors for strategic exports. The defence exports are not only a matter of economic survival but also invariably add muscle to a country's standing in the comity of nations and contribute significantly in enhancing a country's influence among friends and foes alike. The Armed Forces have unambiguously expressed their intent to continue support to the indigenisation efforts and defence exports to friendly foreign countries. While defence export strategy provides the framework for encouraging domestic defence industry to manufacture and export defence products, various recommended measures, as discussed above, if accepted and put into action, will certainly help provide the much needed impetus to indigenisation, galvanise the Indian defence industrial base and simultaneously enhance defence exports manifold in the next few years.

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