

## Defence PSUs, ordnance factories are in dire need of overhaul

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*By Dinesh Kumar*

**Chandigarh:** India's nine Defence Public Sector Units (DPSUs) and 41 Ordnance Factories (OF) are in need of a serious review, overhaul and some serious and meaningful accountability. This is paramount if India has to achieve a credible level of self-reliance in defence equipment. The problems are myriad. These state-owned DPSUs and OFs hardly invest in research and development (R&D). They need sufficient resources to undertake upgrading, modernisation and expansion, but not without putting serious accountability systems into place. They have been suffering serious capacity under-utilisation, are in need of greater financial autonomy, as well as more autonomy in decision making such as in matters relating to joint ventures, co-development and co-production with foreign countries.

As is the case with the Defence Research and Development Organisation (DRDO), many of the other DPSUs are similarly engaged in producing non-defence items, which has resulted in dilution of their status and character as DPSUs. For example, Bharat Earth Movers Limited (BEML) is heavily into making rolling stock such as wagons and coaches for Railways, earth moving equipment and engaging in mining construction business, with defence accounting for less than 50%. About 20% of products manufactured by Bharat Electricals Limited (BEL), which is otherwise entrusted in manufacturing radars, sonars, electronic warfare, communication and other sensor equipment, comprise several major non-defence items such as, for example, electronic voting machines and studio equipment.

The Mishra Dhatu Nigam Limited (MIDHANI), established in collaboration with a French and German firm to achieve self-reliance in strategic materials such as special steels, super alloys and titanium alloys for the defence, nuclear and space sectors, has hardly undergone any worthwhile modernisation and remains saddled with outdated and obsolete facilities, and is thus fraught with jeopardizing strategic products. The impact is evident as it is unable to make even the much needed lightweight bullet-proof jackets for the Army and the paramilitary forces. Instead, these are mostly being imported. Bharat Dynamics Limited, which makes various types of short range missiles, has a poor track of completing new projects.

The four shipyards comprising the nine DPSUs need major restructuring and integration in order to synergise their resources, the lack of which is hindering modernisation of the existing facilities and also in optimizing utilisation of human resources and production capacity. It is no wonder that none of the shipyards have been able to obtain a major export contract. Rather India's defence shipyards remained under-utilised during much of the 1990s and even a part of this century. And when tasked, they take far too long to construct ships for which the Navy too has to share the blame. Moreover, the shipyards hardly engage in R&D, forcing them to be therefore dependent either on designs supplied by vendors or on designs that are vintage.

One example pertaining to the GRSE's (Garden Reach Shipyards and Engineering Limited) poor track record should suffice. In March 2003, the government sanctioned construction of four anti-submarine warfare Corvettes. Construction of the four warships were to begin in 2004, 2005, 2007 and 2008, respectively, and to be delivered within four years each in 2008, 2009, 2011 and 2012. Instead a series of delays led to an almost three-fold cost escalation from an originally projected Rs 3,000 crore to over Rs 8,000 crore. Eventually, construction on the first ship (INS Kamurta) began in 2006 and was delivered eight years and two months later in July 2014; the second (INS Kadmatt) eight years and seven months later in November 2015; the third (INS Kiltan) a staggering nine years and seven months later in October 2017 and the fourth (INS Kavaratti) also after over nine years later in 2018. It did not help that the Navy made 1,200 design changes during the course of construction of these ships.

India's premier naval shipyard, the Mazagon Docks Limited (MDL), has a similarly poor record of maintaining deadlines. For example, there were inordinate delays in the delivery of the three 7,400-tonne Kolkata class stealth Destroyers. Delivery of these warships was originally scheduled for 2008, 2009 and 2010. The delivery schedule was first revised to May 2010, May 2011 and May 2012; then further revised to March of 2012, 2013 and 2014, only to be eventually completed in July 2014 (INS Kolkata), followed by in September 2015 (INS Kochi) and November 2016 (INS Chennai) at a 225% escalated cost of Rs 11,662 crore, from the originally estimated Rs 3,800 crore. The delays were on account of multiple problems which included a staggering 2,363 design modifications by the Navy to incorporate new weapon systems and sensors, slow construction procedures, technical problems, Ukraine's failure to deliver the ship's propellers and shafts, resulting in the contract being later awarded to a Russian firm and finally the delay in the delivery of the Israeli Barak-8 anti-air missiles.

While the Goa Shipyard Limited (GSL) and the GRSE can only build small and medium size ships, India effectively has only one shipyard, the MDL, with the capacity to build large size warships such as destroyers and submarines. Both the GRSE and MDL are fraught with limitations and require expansion, if not relocation. Both the GRSE's future and its ability to build bigger vessels are impeded by the decay of the Kolkata port and the low draft of the Hooghly River. Consultations have been on with western firms to help modernise both the GSL and GRSE, but so far little has been achieved. MDL too has a limited capacity for expansion because of limitations of draught (4.5 meters) and its sandwiched location between the Port Trust and a ship breaking yard.

### **Ordnance Woes**

Many of India's 41 OFs, 16 of which were inherited at the time of Independence, are of World War-II vintage and structurally inefficient. They do not engage in their own R&D and are unable to decide their own vendors. The OFs are primarily manufacturing defence products based on transfer of technology from the original equipment manufacturers, mostly overseas based and from the DRDO. It has made only modest progress in R&D despite creating 11 Ordnance Development Centres with identified core technologies. Rather, there continue to be complaints of defective ammunition being produced in the OFs which have had to be returned. For example, between 2012 and 2015, 429 different types of defective equipment including ammunition produced at the OFs were returned by the armed forces due to quality issues. There have also been long gestation periods to develop and increase capacities at these factories. It took nine years (from May 2002 to August 2011) for the Ordnance Factory Board to create a per annum capacity of building just 30 Indian-made Arjun tanks. It took six years to create the per annum capacity of assembling 100 Russian-made T-90 tanks and has been unable to increase this capacity to 140 despite efforts since 2011. After four to five years of effort, it has been unable to add even 50% success in increasing the capacity for assembling Russian-supplied T-72 tank variants, manufacturing armoured vehicle engines from 350 to 750 per annum and augmenting the capacity to manufacture spares needed to overhaul T-72 and T-90 tanks.

The manufacturing technology has either been procured on a transfer of technology basis or what has been handed to them by the DRDO, much of which is low-end. The OFs are known not to have a system to prepare a balance sheet in order to have an appraisal of their cost of products and materials. Even a standard accounting system and technical audit by an independent agency has not been introduced in the OFs. The private sector is estimated to produce ten times more than what the 41 OFs put together produce despite having two lakh employees. In order for them to be more progressive, productive, competitive and financially viable, OFs could perhaps be turned into a corporation on the lines of, for example, the Indian public sector telephone company, the Bharat Sanchar Nigam Limited (BSNL) and allow them to select vendors and to take a decision in financial and in R&D matters independently.

Clearly, the problems are known. But solutions have to be found and enforced on a war footing. Any dereliction is inexcusable if self-reliance is to be achieved.

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