

In the Armed Forces, huge gap in supply and demand

Inadequate logistics, and shortages of ammunition and spare parts hit Army's capability

THE 'MILITARY Balance 2018' report by the International Institute for Strategic Studies (IISS) indicates that India overtook the United Kingdom as the fifth-largest defence spender in the world in 2017 at \$52.5 billion, up from \$51.1 billion in 2016.

According to the report while India continues to modernise its military capabilities, China "with the world's second-largest defence budget after the US" remains far ahead with three times India's defence budget at \$150.5 billion.

However, it points out that the overall capability of the Indian army is limited by inadequate logistics, and shortages of ammunition and spare parts.

"Development and procurement programmes across the services are aimed at replacing ageing equipment, but many projects have experienced significant delays and cost overruns, particularly indigenous systems," the report finds.

Even Stockholm International Peace Research Institute (SIPRI) has placed India behind only the US, China, Saudi Arabia and Russia in terms of defence spending. India's military expenditure last year was about \$63.9 billion, far less than the spending of the US (\$610 billion) and China (an estimated \$228 billion) but more than the spending by countries widely seen as global military powers, such as the UK (\$47.2 billion) and France (\$57.8 billion).

The Indian Defence Budget for 2018-19 includes a capital outlay of Rs 99,563.86 crore for new weapon systems and modernisation, which is dwarfed by the revenue expenditure (day-to-day running costs, salaries etc) of Rs 1,95,947.55 crore and expenditure on pensions.

Yet, the Indian Air Force is facing an



acute shortage of combat planes — while it should be about 42 squadrons; it is effectively down to about 31 squadrons. The navy needs new warships, aircraft carriers, submarines, artillery and a host of equipment for the army.

For inducting new hardware for its forces, the outlay for capital expenditure should increase over the coming years. This will also require sustained growth of the GDP so that adequate funds can be set aside for big ticket defence deals. In fact, the defence budget to GDP ratio for 2018-19 is 1.49%, the second lowest since 1950, while most experts believe it should be around the 3% mark.

According to media reports, the government may have to increase the allocation for capital expenditure if there are plans for the speedy acquisition of new platforms such as Predator UAVs from the US and artillery guns for the army.

Earlier this year in March, Vice Chief of Army Staff, Lt Gen Sarath Chand, had told the Parliamentary Standing Committee on Defence about the difficulty the lack of equipment was causing to the Indian Army.

The Parliamentary Standing Committee report highlighted the continuing deficiencies that the three services faced in terms of military modernisation, including the 'Make in India' initiative. The Army vice chief, had made a case for ca-



ability upgrades by emphasising the changing threat perception within the country as well as in the neighbourhood.

The Infantry has acute shortage of small arms like assault rifles, sniper rifles, sten guns, light machine guns and anti-tank guided missiles. In small arms, Indian Small Arms System Rifles (INSAS) need to be replaced with modern assault

rifles. Currently the Army is using AK-47s and INSAS. The personal kit of an Indian soldier, which includes bulletproof jackets, helmets and shoes, needs to be replaced with lighter kit.

The current capital expenditure outlay is not singularly addressing the extent of modernisation of the forces. For the army, the budget allocated is \$4.14 bn for modernisation, which is barely 60 per cent of the requested funds. The army had asked for Rs 37,121 crore to fund 125 schemes. In the end, it received Rs 21,338 crore in the Union budget presented on February 1, a shortfall of Rs 15,783 crore.

The same is the picture with the Navy and the Indian Air Force.

The government has also announced that it will develop two defence industrial production corridors and bring out an industry-friendly military production policy to promote defence manufacturing in India. The Finance Minister Arun Jaitley, in his budget speech, had said that the government would also bring out the industry-friendly "Defence Production Policy 2018" to promote domestic production by the public sector, private sector and micro, small and medium enterprises (MSMEs). The minister said private investment in defence production had been opened up, including liberalising foreign direct investment.

MBDA and India: a lasting partnership

MBDA HAS been delivering battle-winning capabilities to the Indian Armed Forces and collaborating with Indian industry for over 50 years. Throughout this history, there have been two guiding principles: to provide the very best technologies to the Indian Armed Forces, and to work in true partnership in support of the Indian defence industry.

The Indian Armed Forces are receiving the ramjet powered and network-enabled Meteor beyond visual range air-to-air missile from MBDA. This next generation missile is widely recognised as a game changer for air combat, and will provide the Indian Air Force with an unrivalled air dominance capability in Asia. Key to this is Meteor's throatle ramjet engine, active radar seeker



and datalink that combine to provide unmatched end-game speed and manoeuvrability at greatly extended ranges, resulting in its all-important "No-Escape Zone" being more than three times greater than any other existing or planned BVR weapons. Other examples of technological edge

equipping the Indian Armed Forces include the MICA and ASRAAM within visual range (or dogfighting) missiles. MICA is unique in possessing both infrared and radar-guided versions, making it countermeasure resistant and therefore highly effective. ASRAAM meanwhile has unrivalled speed and range, meaning it delivers superior end-game performance for within visual range air combat. These and other technologies make the Indian Armed Forces a proud equal to any modern force in the world.

Industrial partnership is of equal importance though, given the importance of sovereign industrial defence capability. MBDA has been assisting the development of sovereign Indian missile industry both public

and private, for over 50 years. Partnerships MBDA has formed with Indian industry have seen over 40,000 missiles of the MILAN family produced in India — a noteworthy and on-going success. MBDA continues to deepen its relationship with Indian industry, as seen by the recent formation of a joint venture with long-standing partner Larsen & Toubro to deliver a series of important missile programmes under the 'Make in India' category.

MBDA has an excellent track record providing both operational and industrial capabilities in partnership with the Indian Armed Forces and Indian defence industry. The strength of these two pillars make it a long-term true partnership, and one that should only continue to get stronger.

BRAHMOS Supersonic Cruise Missile: Pride of India

AS INDIA celebrates 72nd Independence Day with grandeur on August 15, 2018, Indian Armed Forces are vehemently defending the country's borders and also transforming themselves to conform to advanced military technologies and weapon systems. BRAHMOS missile is a name to reckon with when it comes towards enhancing the safety and security of the nation, modernisation of the Armed Forces and supporting indigenisation.

A perfect emblem of India's growing military prowess, the BRAHMOS Supersonic Cruise Missile is a state-of-the-art weapon system which has grown from strength to strength over the years and added new capabilities to meet divergent war scenarios. The advanced weapon system, with its versatility, potentiality and striking capability, has maintained a leading edge over world's other missiles/ weapons. BRAHMOS, which is capable of flying at a top speed of Mach 3, is extremely lethal in striking down enemy targets in no time. The supersonic speed of the missile also makes it difficult for interception by the enemy's air defence system.

BRAHMOS missile, the product of an exemplary Indian-Russian Joint Venture, is the most potent weapon system



and a force multiplier in network centric warfare. It can be launched from multiple platforms based on land, sea, sub-sea and air. The supersonic cruise missile system has added tremendous firepower capability to Indian Armed Forces for targets as deep as 300 kms. BRAHMOS has made its impeccable mark with a series of successful launches and subsequent rapid induction by the Indian Armed Forces.

The weapon has become the mainstay of the Indian Army's artillery firepower. Similarly, for many of the Navy's frontline surface ships,

BRAHMOS has been deployed as a prime strike weapon. In its sub-sea launch configuration, the supersonic cruise missile is set to increase the Navy's underwater weapons delivery capability manifold by being armed in the future submarines.

The Indian Air Force's (IAF) frontline fighter aircraft Sukhoi-30MKI, after be-



ing modified to carry 2.5 tonne missile integrated with half a tonne launcher, successfully demonstrated BRAHMOS missile's firing capability against a sea

based target in the Bay of Bengal. With this maiden launch, BRAHMOS has bolstered the IAF's air combat capability and completed the tactical cruise missile triad.

BRAHMOS has also achieved historic milestones in the 'Make in India' programme by successfully launching the BRAHMOS missile with major sub-systems such as indigenous seeker, critical indigenous components, fuel management system and other non-metallic airframe components; proving the competency of the missile life extension technologies developed for the first time in India by test-firing with advanced features.

BrahMos Aerospace has immensely contributed to the national development from an economic viewpoint by involving the consortium of more than 106 Indian industries, R&D labs and

academic institutions of the country. More than 20,000 specialists, engineers and technicians in large and medium scale industries are currently associated with BrahMos.

The emergence of BRAHMOS has not only strengthened India's technological base but also elevated its image in the global arena. As a high technology defence product, BRAHMOS has great potential of becoming India's major weapon export in the coming decades giving the country a share of the arms business.



Modernisation in the shipyard, inter-alia other measures, undertaken in last few years, has enabled the shipyard to outperform all other shipyards in the sector and to triple its turnover in last four years and moving it to become the 2nd largest DPSU shipyard by turnover. This will also enable the shipyard to be 'future ready' and undertake indigenous construction of important substitute, weapon intensive projects like Mine Counter Measure Vessels and Missile Frigates, adding armour to the Indian Naval Forces.

Rear Admiral Shekhar Mital, NM, IN. (Retd.),
CMD, Goa Shipyard Limited

Goa Shipyard Limited: helping India stay ahead



Aerial view of Phase 3A of modernisation at Goa Shipyard Limited

GSL HAS undertaken a massive modernisation drive in the last few years to increase its capacity manifold and setup infrastructure for indigenous construction of technologically advanced vessels for the nation's security requirements. With consistent yearly CAPEX of over Rs 100 crore, the shipyard has created an enviable modern infrastructure boasting of 6,000 T ship lift, dry docks, outfitting jetties and workshops besides unique specialised facility for construction of advanced Mine Counter Measure Vessels (MCMVs) constructed with niche FRP technology. It's the only shipyard in South Asia to have this unique capability of construction of hulls for MCMVs in FRP. To GSL's credit, the entire modernisation drive has been executed without affecting the production schedule, though the work is being done in same old location, by demolishing the existing infrastructure and creating new state-of-the-art facilities in lieu. On the contrary, VoP in FY18 has grown to Rs 1,343 crore, three times in last 4 years, and for second year running, it's the second highest, amongst DPSU shipyards, after MDL. Immediate fallout of upgraded infrastructure along with strong proven execution skills has been selection of the yard, for construction of 02 Advanced 1135.6 Missile Frigates in collaboration with Russia, the production for which would commence in 2020. With an eye on future technologies, the yard has tied up with world leaders through multiple collaborations for induction of most advanced technologies in the country, the benefit of which on 'Make in India' programme would be evident shortly. As the modernisation phase nears completion, GSL, on strength of technology adoption in recent years, is ready to take challenges of future shipbuilding programmes and thereby keeping the Indian defence ahead of its rivals. The yard for its unparalleled vision and performance was awarded coveted "MoD Best Performing shipyard" trophy by Hon'ble RM in May 17

Rear Admiral Shekhar Mital, CMD, GSL

