



DEFENCE AND SECURITY ALERT

SAARC COUNTRIES : US\$ 20
REST OF THE WORLD: US\$ 25

November 2015

INDIA: ₹ 120
VOLUME 7 ISSUE 2

The First and The Only ISO 9001:2008 Certified Defence and Security Magazine in India



THE ONLY MAGAZINE AVAILABLE ON
THE INTRANETS OF IAF, CISF AND BSF



HOW WILL Ease Of Doing Business In India STRENGTHEN NATIONAL SECURITY



*The power of a King lies in his mighty arms ...
Security of the citizens at peacetime is very important
because State is the only saviour of the men and women
who get affected only because of the negligence of the State.*

— Chanakya

DSA™ **MISSION**

We endeavour to sound *ALERTS* and create *AWARENESS*
about the myriad dimensions and manifestations of
DEFENCE and *SECURITY* in India and around the world.





**DSA
is as
much
yours,
as
it is
ours!**

National Security is not the domain of any one service, any department or any particular field of profession. It is in fact the total outcome of various facets of human and national life that converge to secure a nation, a people and their lands. Since various fields of human endeavour contribute to making a nation secure it is worth paying attention to all that is possible in order to improve conditions. There is a need, nay an urgent requirement, to opening the minds in order to focus better on all that can contribute to making national security. Time is now.

It is common for national security to be regarded as a military responsibility. With a large dose of intelligence agencies thrown in as well. That in its own way means that the police and their various organisations, armed or otherwise, are also expected to be contributing to making national security. Which then also leads to the fact that political administration has a great deal to contribute. The fact that the government has been able to make all this function is because it has resources to carry out the various tasks at hand. In this intricate diagram each link functions only because they have the means and resources to let them function.

So from where does the government get these resources? And that too in such enormous quantities. Which allow the government to undertake all the complex responsibilities that make national security the awesome task that it is. These resources are raised from the various taxes that citizens pay in their daily life and more from some advanced transactions that take place toward the higher end of the economic scale. Some major mergers and acquisitions will, for example, earn the government a windfall of revenue. So ultimately it is enormity of the business cycle that will sustain the complexity of the national security apparatus. These two are directly proportional to each other.

There is, therefore, a direct correlation between the business cycle of a country and its ability to sustain national security expenditures and payments. It is obvious, then, that a country wishing to keep a robust national security profile must also be encouraging business amongst its people. It goes without saying that the energies a vibrant business cycle produces aids the national security set up of a country an enormous amount. So to maintain its armed forces, police network, intelligence agencies and all the sundry that contribute to national security, a nation must encourage its businesses to grow ever more.

When that is the simple formula to maintaining a national security apparatus why then does the country make life so complicating for its entrepreneurs? The correlation between the two is very obvious and so are the benefits of encouraging the business community. And yet governments don't seem to free business from the mundane, thus making life difficult for the motivated enough. It is well nigh time that decision-makers realise the benefits of easing business norms so that the national security set up is helped too.

The countries that have the most efficient and effective national security establishments are the ones that have the easiest business environments. This is apparent from across the world. Whether it is a democracy like the United States of America or a totalitarian country like China, a vibrant business climate has enabled both to rapidly expand their national security establishments. From a mid-level third world country barely forty years ago to a soon-to-be the largest economy in the world China has traversed this distance in such short a span of time only because it took the business friendly route to making its mark on the world. As a result of which it has the second largest defence and security budget in the world and is inducting high-technology weaponry at a rapid pace.

A totalitarian country without a business friendly system and trying to live a super power life was once known as the USSR. It is now extinct, thus buttressing the aforementioned point once again. Given Prime Minister Narendra Modi's vision of 'Make in India', it is very important for easing business regulations *et al.* Ease of doing business means a more efficient and effective national security establishment. A very simple formula to making the country more secure and safe.

Manvendra Singh

DEFENCE INDUSTRIAL BASE

The Way Forward



With the world fast levitating into the Fourth Generation Warfare syndrome, developing nations like India are on the anvil to bolster and toughen up their National Security. Threats and challenges have increased multifold and there is an urgency to pay attention to the discrepancies caused due to years of neglect in procurement of modern military wherewithal for our armed forces. India has been fortunately blessed with an unusual progeny of warriors in our Forces who have demonstrated that they can deal with enemies appropriately with 'whatever we have' ... as in Kargill!!

This laxity and inadvertence is now brimming up to intimidating parameters with urgently required weapons taking decades to reach our soldiers on the borders. Such negligence becomes self-defeating when not addressed on time. After the Chinese aggression in 1962, India had launched multiple programmes for the production of aircraft, tanks, guns and missiles. There have been some encouraging results in missilery and naval platforms but the gestation of projects to produce tanks, aircraft and guns has been excruciatingly long and troublesome, exacerbated to a large extent by periodic embargos and sanctions against Indian entities whenever India sought to tread a sovereign path. While DRDO, Bhabha Atomic Research Centre and the Indian Space Research Organisation have skyrocketed India among the world leaders in missiles, atomic weapons and the exploitation of aerospace domain critical items required by the defence forces are still elusive. The accelerator needs to be on full throttle. The Modi-led NDA government has sought to rejuvenate the indigenisation of military hardware programme with a renewed accent on 'Make in India'.

It is high time that our current government commits TOP PRIORITY to National Security and mobilises mandatory actions in this regard with continued momentum and implementation within time frames. An altogether new environment and a new work culture has to be infused in India for the ease of doing business in the defence and security industries that will attract overseas entrepreneurs and will strengthen India's National Security. I would like to suggest some crucial and imperative transfigurations:

- Dedicated department under the Ministry of Industry consisting of experts in defence and security with hands-on experience to mentor private sector companies interested in producing weapons and equipment.
- Permissions, approvals, licenses should be provided at one window.
- Special tax holidays and rebates to such industries that produce products for National Security.
- A Data Bank of capabilities along with their technical and financial strengths (by way of expertise and infrastructure) of Indian companies that are interested in tie-ups with foreign manufacturers should be developed at the earliest. This Data Bank should be circulated to all Indian High Commissions and Embassies around the world.
- A match-making of such Indian and foreign companies should be done within established time frames and deadlines.
- Special banking provisions should be made for credits and loans for such companies in the interest of the National Security by establishing a dedicated Defence and Security Development Bank (DSDB) on the pattern of IDBI.

DSA is savouring seventh year of its existence. An overwhelming support of all stakeholders illuminates our path as we march ahead in the interest of National Security. Your encouragement and feedbacks have ensured that **DSA** sustainingly endeavours to raise the level of consciousness in defence and security journalism and we assure you that we will always strive to exhibit the expected level of substance and excellence.

Team **DSA** joins me in wishing you a very happy and prosperous Diwali!



Jai Hind!

Pawan Agrawal
Pawan Agrawal



An ISO 9001:2008 Certified Magazine

Volume 7 | Issue 2 | November 2015

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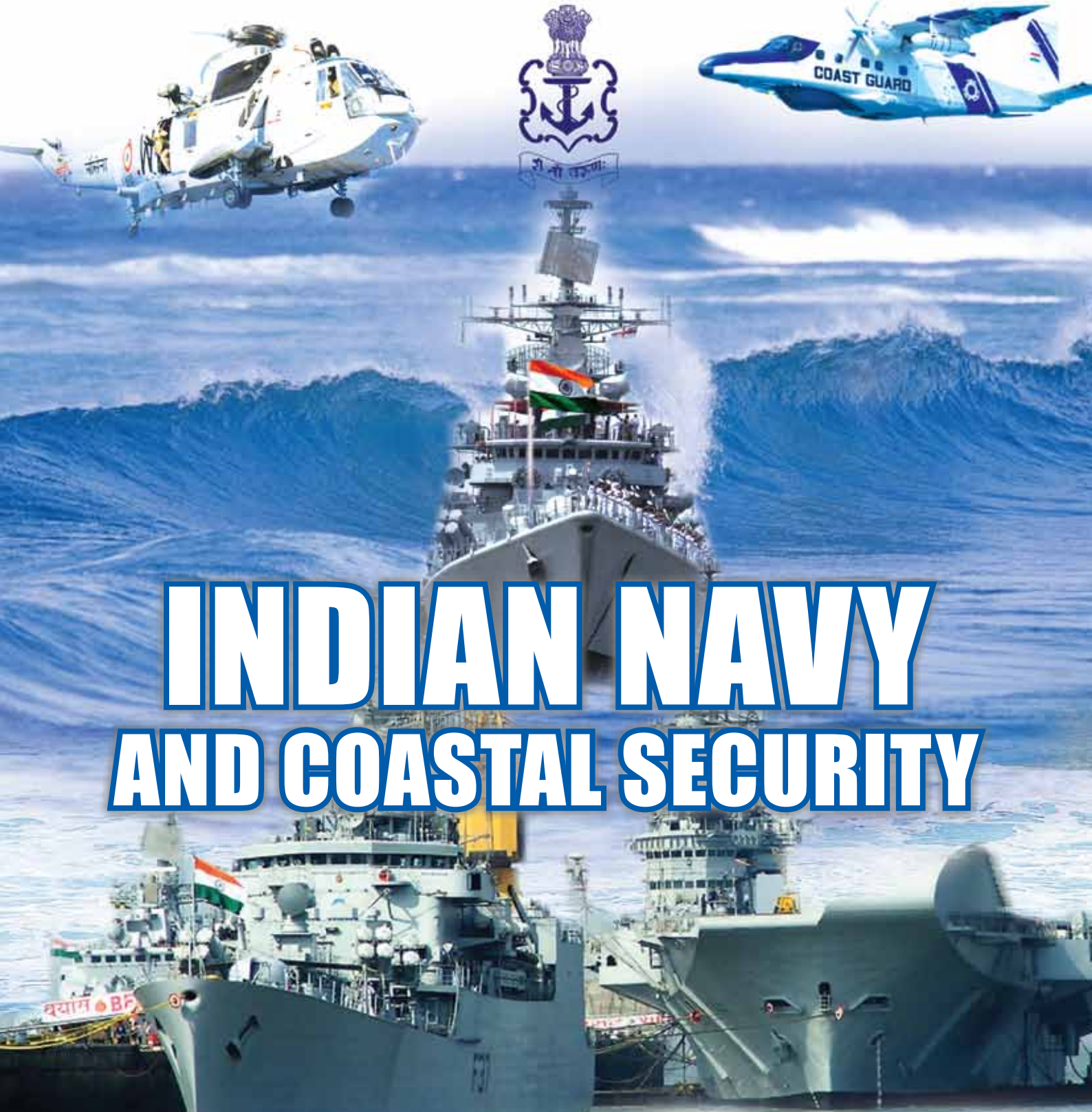
Defence and Security Alert is printed, published and owned by Pawan Agrawal and printed at Graphic World, 1686, Kucha Dakhini Rai, Darya Ganj, New Delhi-110002 and published at 4/19 Asaf Ali Road, New Delhi (India). Editor: Manvendra Singh

sneak peek

DSATM

The First and the Only ISO 9001:2008 Certified
Defence and Security Magazine in India

Announces December 2015 Issue on



INDIAN NAVY AND COASTAL SECURITY

For subscription write to: subscription@dsalert.org | online@dsalert.org

Or call: +91-11-23243999, 23287999, 9958382999



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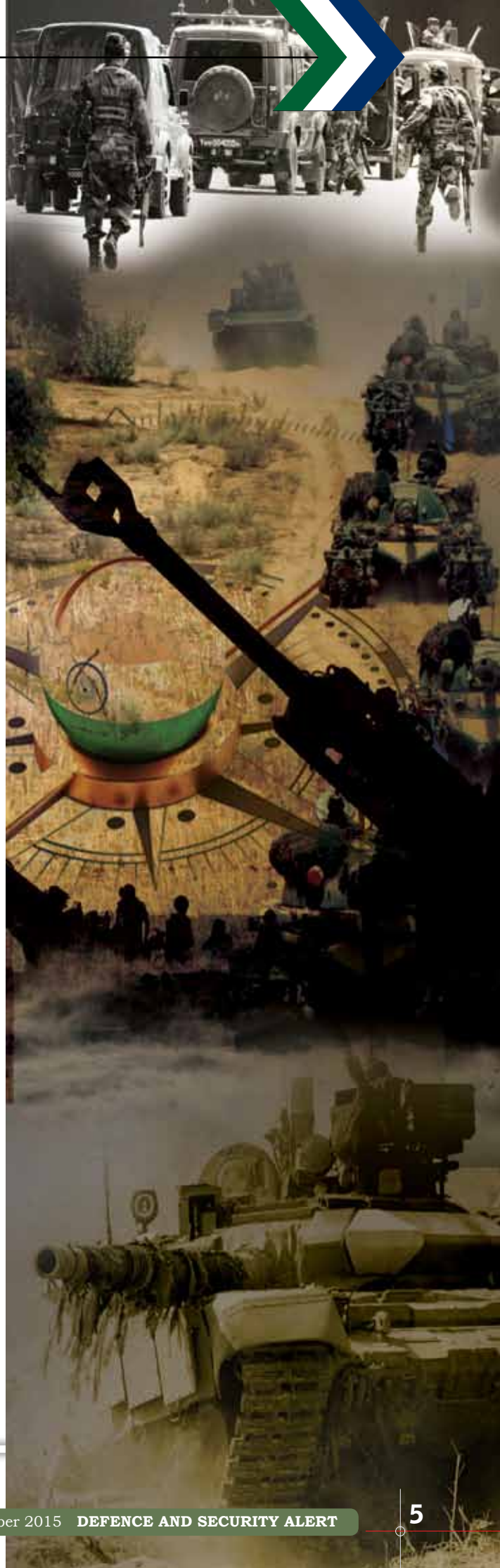
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For online edition

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HOW WILL EASE OF DOING BUSINESS ENHANCE NATIONAL SECURITY

Enhancing ease of doing business in the Defence sector will create a vibrant military industrial complex and increase self-reliance in Defence. With a sound domestic Defence industry and multipolar alliances in place, capacity constraints cease to exist and war of attrition would no longer be a concern. The 'Make in India' campaign is articulation of a far reaching vision with definitive impact of security of the nation.

Computing the measurable military capability required to overcome the multi-dimensional threats to our national security is a constant exercise that our Defence forces and the government engage in. The activity beyond this exercise involves acquiring identifiable capabilities.

The legacy of Indian military hardware can be attributed to an embryonic concept of Gandhian principles of non-violence and non-alignment. Furthermore, a young India embarked upon a socialist construct, with establishment of large public sector enterprises with a very small outlook to Defence.

Import Dependence

Three wars in quick succession required rapid equipping of our armed forces and with almost no domestic capacity, most of our military hardware was imported.

This led to a situation of import dependence, spiral for sustenance, upgrades and obsolescence management. Any attempt to break out of the spiral required contemporary technology, sound design capability and a strong manufacturing base. The government monopoly over the



Defence manufacture with almost negligible focus on in-house research and development ensured that the import cycle is propounded in perpetuity.

Today, the Indian Defence forces are on the threshold of a major modernisation cycle and the Army has lined up an ambitious modernisation programme in artillery guns, air defence systems, armoured fighting vehicles, unmanned aerial vehicles and helicopters.

Paradigm Shifts

Two major policy shifts have changed the scenario. Flexibility introduced in Defence offsets policy and 'Make in India' campaign announced last year have signalled that the days of multibillion dollar deals are over and India would now embark upon creating an indigenous military industrial complex.

Building military capability is a complex issue involving long-term investment in terms of financial, human, physical and technological resources. While we have attained a credible military capability over the past seven decades, our dependence on foreign military equipment is a matter of concern. It is

The environment in the higher echelons of policy making is far more enabling than ever before



heartening of note that this aspect is being given serious consideration by the government and the Services. When we look at the 'Make in India' campaign in this background, it emerges as an absolute imperative to our national security.

The existing defence industrial base in the country largely comprises of 41 Ordnance factories with merely a few of them involved in manufacture of military hardware. In addition there are nine Defence Public Sector Undertakings and incentives and concessions are offered to 50-odd MSMEs engaged in the manufacture of Defence equipment. The 52 DRDO laboratories are the sole repository of Defence technology and provide the R&D muscle.

The Challenge

Today the enormity of establishing the military industrial complex is unambiguous. Our contracted offset obligations are far beyond the established capacities. Public sector monopolises transfer of technology which remains partial, low-tech and repetitive. The armed forces are in the cusp of one of the largest procurement cycles in the world.

Indian private industry has the capacity and financial muscle to create globally competitive enterprises which would not only create self-reliance but also an opportunity to export. In a changing economic scenario, global firms are more than willing to create deeper and more meaningful alliances and willing to invest in a nascent but promising Defence industry of India.

Level Playing Field

While excellence exists in small insulated islands of domain, a focused thrust forwards ensuring ease of transacting business will transform the security paradigm in the country. Ensuring a level playing field between the public and private sector by providing equal opportunity to produce, test and manufacture military hardware will establish competing sources. This would not only lead to efficiency of the public sector units, but would also result in cost competitiveness, establishment of additional capacities and realisation of a common ecosystem for component supply chain. Quantity inspires quality and with enhanced capacities there would be a marked quality enhancement in due course. This ease of doing business would usher a higher capacity and better quality both of which would lead to a degree of comfort in the security matrix.

Funding For Defence

Mounting revenue expenditures and a two steps procurement process precludes any meaningful cost benefit analysis in defence procurements.



Lt Gen CA Krishnan

PVSM, UYSM, AVSM, ADC

The writer is Deputy Chief of Army Staff (Planning and Systems), Indian Army.



India could become a lead integrator in Defence platforms

Furthermore, stringent military specifications and a finite requirement impose a price which is unrealistic in common commercial terms. The Defence funding is declining in real terms and there is a need to infuse funds in the domestic Defence industry. The major constraints to such an exercise have been a cap on FDI in Defence, capacity constraints and absence of a robust ecosystem.

Liberalising process for infusion of funds would create mature entities and joint ventures which could harness unique technologies from globally diverse sources to produce world-class products.

Improving Technological Thresholds


Ease of doing Business and developing a strong indigenous Defence manufacturing base would also require smooth, efficient and meaningful transfer of technology. A comprehensive IPR management regime with detailed guidelines for propriety of foreground and background IPRs would ensure that mature technology modules available across the world are absorbed and there is no requirement

to constantly reinvent the wheel. India could become a lead integrator in Defence platforms and apart from satisfying its internal requirements, could also become an important player in the global supply chain of major Defence players.

Liberalising Exports

Most Defence requirements are finite and need to cater for capacity single. This demand supply mismatch can be suitably addressed by liberalising exports as an exercise which would considerably enhance the national security aspect whilst keeping the commercial interests of the industry aligned.

Conclusion

Enhancing ease of doing business in the Defence sector will create a vibrant military industrial complex and increase self-reliance in Defence. With a sound domestic Defence industry and multipolar alliances in place, capacity constraints cease to exist and war of attrition would no longer be a concern. The 'Make in India' campaign is articulation of a far reaching vision with definitive impact of security of the nation. The environment in the higher echelons of policy making is far more enabling than ever before and if all stakeholders walk the talk with a sharp focused approach, the Indian Defence sector has an exciting future ahead. 



K RAJENDRA KUMAR IPS

Director General Police Jammu & Kashmir



He is a highly decorated and most illustrious Officer of J&K Police.

THE AWARDS AND MEDALS AWARDED TO HIM ARE AS UNDER:

- Police Medal for Meritorious Service in the year 1999
- Sher-i-Kashmir Police Medal for Gallantry in the year 2002
- Police Medal for Gallantry in the year 2002
- Sher-i-Kashmir Police Medal for Meritorious Service in 2006
- President's Police Medal for Distinguished Services in 2008
- Parakram Padak in the year 2008
- DGPs Commendation Medal
- Chief of Army Staff Commendation Disc
- United Nations Medal

Besides many other service Medals

KRajendra Kumar joined in J&K State after completion of Basic Training from Sardar Vallabh Bhai Patel National Police Academy, Hyderabad, in March 1986 and was posted as SDPO Reasi (**first posting**).

He has held various important and challenging assignments which include SSP Doda, SP City Srinagar, SSP Srinagar, DIG Doda-Udhampur Range, DIG Rajouri-Poonch Range, DIG Kashmir Range, Two stints as IGP Kashmir, IGP Jammu Zone, IGP CID J&K, Addl DGP CID J&K, Addl DGP Armed and L&O, DGP Prisons and **now DGP J&K since 2nd June 2014.**

During these assignments he faced numerous challenges on account of terrorism and law and order front and achieved desired goals.

He is responsible for galvanising J&K Police to lead in their fight against militancy during peak periods of militancy in J&K by way of taking numerous measures both in terms of motivation, training, mobility and other infrastructure which gave a great fillip in the morale of the Force to fight against the militancy.

He was seriously injured in one of the deadly terror attacks while being posted as IGP Kashmir (2nd stint) on **21st May 2006** at Sher-i-Kashmir Park Srinagar where then Honble CM J&K, Ghulam Nabi Azad, was to address a huge public rally.

He also served as interim DGP of the State from 31.05.2012 to 23.07.2012 for a short duration. **DSA**

Business Ease AND NATIONAL SECURITY



We need to acknowledge that countries producing modern defence systems have done so through private industry, not through DRDO-like set ups where the latter should mainly focus on R&D particularly futuristic technologies.

Ever since the present government came to power, the accent has been on upgrading the economy. Business has been in the air with Prime Minister Narendra Modi's call to 'Make in India' on 15th August 2014. During his foreign visits, the Prime Minister has been asking for FDI in India, to which there has been considerable enthusiasm. In a recent meeting with the Prime Minister on 8 September 2015, India Inc demanded greater monetary easing to bring down the cost of capital for businessmen and requested creation of favourable conditions for domestic industries in global trade through rupee depreciation. In August 2015, Peter R Lavoy, Special Assistant to US President and Senior Director for South Asian Affairs at the National Security Council had stated Prime Minister Modi has made remarkable progress by rolling out a red carpet for foreign companies but the infamous red tapism of Indian bureaucracy continues to pose hurdles to investments. His assessment of the Modi government meaning that both red carpet welcome and red tapism are running parallel to each other. This indicates that reforms have really not taken off, one example being that while defence projects worth US\$ 16 billion have been 'cleared' not a single request for proposal (RFP) or tender had been issued till this article was submitted for publication in third week September.

National Security

National security implies not only safeguarding territorial boundaries but also shaping the environment so that the nation is able to build a cohesive, egalitarian, technologically efficient and progressive society with a good quality of life. National Security has numerous facets, some of the major ones being: Military security; political security; economic security; health security; personal security; energy security; food security;



community security; environment security etc. Ease of doing business in all these spheres may impact national security. While one cannot go into all these due to constraints of space, three examples would indicate the relationship between ease of doing business and national security. First, was the warning issued by the National Security Council Secretariat during the erstwhile UPA government not to do business with Chinese companies Huawei and ZTE, apparently because they maintain diverse relationship with PLA encompassing supply of equipment, training and collaborative research in network design, jamming and other cyber techniques. However, within three months of issue of such warning, MHA threw open the gates for these companies to set up business in India. Second, is the continuing ease of doing business of Chinese suppliers in meeting 'almost' total Indian requirements of computer and telecommunication parts while we don't have the wherewithal to even detect malware embedded at manufacture stage. Third example is the gross neglect over past decades in developing semi-conductors indigenously, which affects even our weapon systems. Additionally, we are also far from developing our own operating systems, like the Chinese have done.

FDI In Defence

In 2014, FDI limit in defence was raised from erstwhile 26 per cent to 49 per cent, with the Parliament approving that this upper limit of 49 per cent can be raised further on case to case basis depending on state-of-the-art technology offered including transfer of technology (ToT). Yet only six FDI proposals in defence have been received totalling to a paltry ₹ 96 crore (US\$ 15.3 million). The response is poor apparently because of the red tape cited above; defence projects worth US\$ 16 billion cleared but no RFP or tender issued. The second major reason is that the new defence procurement policy (DPP) after change of government is still to be issued. Additionally, we haven't really addressed how to create conditions to absorb the FDI.

Defence Procurement Policy

On the sidelines of Aero-India show at Bengaluru in February 2015, Defence Minister Manohar Parrikar had stated that the current DPP is not conducive to 'Make in India' in Defence. Over the years the DPP has been annually revised in-house by the MoD, which despite media hype did not provide a level playing field for the private industry. Actually, only cosmetic changes were made in order to retain control by the governmental defence industrial complex, which resulted in India continuing to meeting 70 per cent of its defence requirements through imports. The 2011 DPP had made plenty promises including review of 'Make' procedure, separate fund to resource public and private sectors, SMEs and academic and scientific institutions

to support R&D for defence but all these promises remained largely unfulfilled. Last year, MoD appointed a 10-member committee to work out the new DPP to draft an easy-to-comprehend and industry-friendly procedure that would cut down chronic delays in defence procurements. The Committee was to submit its report by July 31, 2015. The private industry continues to remain apprehensive since year after year MoD has come out with DPPs with only peripheral changes. The private industry construes the proposed expansion of the DRDO with its seven technical clusters and host of new appointments with enlarged manpower as continuation of erstwhile procedures of everything 'through DRDO' directly or indirectly.

Defence Offsets

In April 2015, a draft offset policy was put into limited circulation by MoD for comments by some industry associations. There is no doubt that defence offsets are incidental to the procurement and import of weapon systems and defence equipment.

We haven't really addressed how to create conditions to absorb the FDI

But they too are vital considering the massive voids in our military. Since we continue to import great number of parts and assemblies for the otherwise indigenous labelled *Tejas* aircraft which will hopefully get fielded next year, it is apparent that considerable quantity of imports will likely continue for 'Make in India' projects. There is also the question of imports required to cover the gestation period of 'Make in India' projects to start fielding indigenous weapon systems and equipment taking into account the voids and obsolescence of defence equipment currently held by our military. The question also arises whether we actually need a separate offset policy and why can it not be part of the DPP itself because any mismatch would have obvious implications.

Defence Industrial Complex

World over defence equipment needs of modern armies are being met primarily by the private industry. Clearly our governmental defence industrial complex with over 50 Defence R&D laboratories of DRDO, 9 DPSUs and 42 Ordnance Factories, employing an overall manpower of 1,80,044 employees has largely failed with us continuing to meet 70 per cent of defence needs ex import, albeit there have been bright spots of ISROs space projects and missiles



Lt Gen Prakash Katoch

PVSM, UYSM, AVSM, SC (Retd)

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and isolated cases like the *Dhanush* artillery gun that used the ToT of *Bofors* gun that the DRDO sat over for 30 years. Even the *Akash* developed over three decades was meant to provide AD cover to mechanised formations on the move performance has to be used by both the Air Force and Army in static role. Presently, 50 per cent of defence equipment held by our military is 'obsolete' and CAG reports indicate massive across the board corruption, pointing out that 30 per cent of defence equipment produced indigenously is 'sub-standard'. All this amounts to a truly deplorable state. Dr Abdul Kalam (later President) headed a committee in 1995 that decried 70 per cent defence imports and directed by 2014 we should be meeting 70 per cent defence needs indigenously. But 19 years later when a review was done in 2014, we were still importing 70 per cent despite joint secretaries of MoD on boards of all these organisations. Yet, no heads rolled. During the 1999 Kargil Conflict, Gen VP Malik, then Army Chief had said, "We will fight with what we have". Now Army Chief Gen Dalbir Singh has repeated the same 16 years later. Another sad commentary!

Private Sector Participation

MoS (Defence) informed Parliament in July 2015 that certain measures have been taken to ease private sector participation like: 287 Industrial Licenses (ILs) issued; Defence Products List for issuing ILs revised to reduce entry barriers, particularly SMEs; processes streamlined and made available online with many restrictions removed; all Indian industries (public and private) now subjected to the same kind of excise and custom duty levies; list of military stores put in public domain to make the process transparent and unambiguous; Defence Exports Strategy outlining steps to be taken has been formulated and put up in public domain and; preference to 'Buy (Indian)', 'Buy and Make (Indian)' and 'Make' categories of acquisition over 'Buy (Global)' category, thereby giving preference to Indian industry in procurement. These measures are laudable but do they address the problems of the manufacturers other than the lack of requisite DPP, like: what is his market – only India or will he get other avenues; who can he tie-up the JV with; has the partner got adequate infrastructure and technical expertise; if his is going to be the major contribution, how can he set up base – land facilities etc and; in what time frame can he get required clearances and get cracking. There is no denying that major projects in the aerospace industry are taking off both under public private partnerships and JVs between Indian and foreign companies but these are long-term projects and only cater to part of our defence needs.

Easing Business In Defence

We need to acknowledge that countries producing modern defence systems have done so through private industry, not through DRDO-like set ups where

the latter should mainly focus on R&D particularly futuristic technologies. The new DPP should cover all military requirements; provide true level playing field laying down clear division between public and private industry; lay down how much in advance and in sufficient detail what products and technologies are required in what time frame by the military, provide sufficient time for R&D and development; include offset policy as an intrinsic part; define scales of funds for

It is important to remember that 'Make in India' is only 'one' part of defence

R&D for developing prototypes and beyond; and define structures and organisations outside the MoD to implement the defence production and procurement policies. It is about time that we go in for a composite Defence Production and Procurement Policy (DPPP).

Structural Changes

No country can aspire to be a military power importing 70 per cent of its defence needs and with a type of set up that India has. The major reason for our defence being in such dire straits is because of lack of military professionals in the higher defence set up, particularly MoD and the governmental defence industrial set up. Structural and administrative reforms are the bane of all the problems in India's defence. A CDS needs to be appointed to synergise the military and institute true RMA under directions of the Prime Minister. The proposed Permanent Chairman with no operational powers will amount to a puppet to the generalist bureaucrats of MoD. The government should replace the MoD with a Department of Defence (DoD) headed by the Defence Minister and manned by military professionals. Such changes are as important, if not more, of Niti Aayog replacing Planning Commission. HQ IDS should merge with MoD/DoD which would also bridge existing void in MoD of institutionalised strategy formulation structure. Being users, the military must be inducted at the design, planning and decision-making levels of the governmental defence industrial set up. Move of DefExpo 2016 from the Capital to Goa too is an ill-advised decision. The last eight DefExpos have been held in Pragati Maidan for good reason with hundreds of defence officials and military officers visiting the exhibition on daily basis. Goa only has a small naval base and while shifting DefExpo to Goa may give hoteliers a field day and political mileage to the Defence Minister, all else is in the negative besides infructuous expenditure. This decision must be reviewed.

Ease in business is definitely required to boost the economy of the country but it should not jeopardise national security, few examples of which have been given above. As for the defence sector, 'Make in India' is important but we need to look at what is needed, in what time frame and how to facilitate it holistically. It is also important to remember that 'Make in India' is only 'one' part of defence. Unless we make the aforesaid structural and administrative reforms, defence of our country will remain incomplete. **DSA**



MAKE IN INDIA

AND THE PRIVATE SECTOR



Dr Laxman K Behera

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The trust factor with the private sector is perhaps best amplified in government's recent decision to allow L&T to sign a Licensing Agreement for Transfer of Technology (LATOt) with the DRDO for upgraded digital version of the Pilotless Target Aircraft (PTA), *Lakshya*. This is the first time that technology of a high value product developed by the DRDO was given to private sector for license production.

It is a fact that the military constitutes the hard power of any nation. It is also a fact that a true hard power is one that has the ability to equip and sustain its military largely on its own efforts. Unfortunately for India, which has one of the largest militaries in the world, the real hard power has been missing as it overwhelmingly depends on others for the requirements of its armed forces. Despite several efforts in the last several decades, Indian defence industry continues to be known for its poor performance, resulting in huge arms import every year. The poor performance of the industry can be largely attributed to the nine Defence Public Sector Undertakings (DPSUs) and 40 odd Ordnance Factories (OFs) which have been at the forefront of India's arms production. It is the failure of these state-owned entities that the government finally opened, in 2001, the defence production to private participation. However it took another almost decade-and-a-half to provide an enabling framework for this hitherto neglected sector to contribute in any meaningful manner. The framework, which is now being provided under the much-hyped 'Make in India' initiative deals with a series of 'ease of doing business' and other reform measures as explained below.

Industrial Licenses

Within a span of one and a half years of its coming to power, the Modi government has already taken four broad reforms measures besides taking

few other steps to deepen private participation. The reform measures already taken pertain to industrial licensing, FDI cap, defence exports and level playing field between private and public sector. The reform in industrial licensing which came in the form of a series of government notifications between 26 June 2014 and 22 September 2015, is an attempt to codify and simplify the process of granting industrial license (IL) and remove procedural hurdles and other complexities in the process. It may be noted that private sector participation in defence, which was allowed since 2001, is subject to an



industrial license from the government. However, from the very beginning there was no clarity, at least in the public domain, with regard to the items against which IL would be granted. From the industry's point of view, what was more painful was the restrictive conditions imposed while granting the IL and also the undue delay in the whole licensing process. In order to streamline the process, the new government has brought out, for the first time, a public version of a list of defence items. The list while identifying the items which are subject to industrial license, has also made it clear that any item that falls outside the list is not subject to industrial licensing. The government has also extended the validity of IL from earlier 3 years to now 18 (15+3) years and removed the annual capacity norms as a condition to operationalise the license.

The human interface involved in filling up the license application has also been removed by putting in an online platform. More significantly, the government has expedited the granting process. In the very first year of its coming to power, it has granted some 73 ILs in comparison to 56 ILs given in previous three years. It may be noted that some of the ILs granted by the new government were pending since 2009!

Automatic Routing

The reform in FDI cap was first announced in the Modi government's first budget presented to the Parliament on 10 July 2014. Detailed notification was announced on 26 August 2014. As per the notification, the FDI cap stands increased from earlier 26 per cent to a now composite cap of 49 per cent that includes a maximum 24 per cent investment by foreign portfolio investors (FPI), foreign institutional investors (FII) and the like. It may be noted that under the previous policy, FPI/FII were either banned or capped at an arbitrary level, causing unnecessary headache for the companies listed in the stock exchanges. While allowing FPI/FII, the new policy also allows them under the automatic route, requiring no prior government approval. However non-FPI/FII is subject to government approval as was the earlier practice. For FDI beyond 49 per cent, the Cabinet Committee on Security (CCS) – the highest political decision-making body on security matters chaired by the PM, would decide on each proposal 'whenever it is likely to result in access to modern and state-of-the-art technology'. Apart from this, the revised policy has also dropped an earlier onerous provision which required, for the purpose of control, the single largest resident Indian shareholder of the JV to have at least 51 per cent equity share. As per the new policy, the control is now to be exercised by the resident Indian shareholder's power to influence the company's policy decisions and appoint a majority of the board of directors.

Export Promotion

Following the FDI cap increase, the government announced in early September 2014 a set of measures to promote defence export. The export measures include an export strategy and detailed standard operating procedures (SOPs) for grant of no objection certificate (NOC) to the industry. The export strategy outlines various steps such as formation of various promotional bodies and various diplomatic and financial support for the industry's export promotion. The SOP, which has further been revised in July 2015, gives clarity with respect to the processes and documentation required for export license clearance. It may be noted that the private sector had long demanded an export policy that takes into account the country's security imperatives while promoting the commercial interests of the industry in a predictable and

The government announced in early September 2014 a set of measures to promote defence export

objective manner. The lack of policy had led to slow and ad hoc decision-making which was not necessarily in the interest of the industry. The SOP is meant to meet that long-standing demand.

Like the export policy, the private sector has long also demanded parity with the DPSUs and OFs which were long exempted from paying central excise duty and customs duty on goods manufactured and supplied to the defence forces. The main contention of the private sector was that the duty exemption enjoyed by the DPSUs and OFs distorts the level playing field, by giving the public entities an unfair advantage to quote lower prices in open competition. In order to allay the concerns, the government withdrew both the exemptions which were notified on 30 April 2015. These notifications have not only created a level playing field for the private sector but also for the foreign companies such as Boeing, Airbus, Lockheed Martin, BAE Systems who are actively exploring the scope of future investment in India.

Decisiveness

From the self-reliance point of view, what is perhaps of greater importance is the MIIs emphasis of putting the domestic industry, particularly the private sector, in the heart of the procurement process. It may be noted that the Modi government's first year itself saw clearance of 39 acquisition proposals, of which





32 proposals worth ₹ 88,900 crore (96 per cent) were under 'Buy (Indian)' and 'Buy and Make (Indian)' categories. More significantly, in almost all the big proposals, there is a role for the private sector and in some cases the role is exclusive. Such a role for the private sector has come out as a result of the governments conviction of giving this hitherto neglected sector a fair chance, even if it means a change in the previous government's import-centric decision to that of indigenous industry-centric one and a loss of business to the public sector entities. In case of the P-75 (I) project for procurement of six conventional submarines, the new government has changed the previous government's decision (to import two submarines followed by license manufacturing of four by the public sector shipyards) and decided to construct all the submarines in the domestic shipyard in which the private sector would be given a chance to compete. In *Avro* Replacement Programme, the government has not only shown decisiveness in quickly overcoming certain reservations continuing from the previous government but also gone ahead in accepting the only single bid submitted jointly by the TATA and Airbus – a rarity in India's decision-making scheme of things. In the LPD contract, the government has

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decided to exclude the Cochin Shipyard Ltd (a public sector company) and issue the tender to the private shipyards only. More significantly, the new government has taken some concrete steps for operationalising the 'Make' procedure, which was in limbo since its articulation in 2006. In February 2015, the government awarded the first ever developmental contract to two shortlisted consortiums – one of which consists of two private companies, TATA and L&T – to develop the BMS prototype. The trust factor with the private sector is perhaps best amplified in government's recent decision to allow L&T to sign a Licensing Agreement for Transfer of Technology (LAToT) with the DRDO for upgraded digital version of the Pilotless Target Aircraft (PTA), *Lakshya*. This is the first time that technology of a high value product developed by the DRDO was given to private sector for license production. Earlier, the DPSUs and OFs had the exclusive rights for undertaking such production of DRDO developed items. All these developments mean that the private sector which was hitherto excluded in the big-ticket procurement cases in favour of either direct import or manufacture by the public sector entities, would now play an equally major role in India's defence production sector. **USA**

INDIAN AEROSPACE INDUSTRY

Awakening The Sleeping Giant

Aerospace industry uses high technology and is a high-risk industry, which consequently results in high costs. The time has come for the DPSUs to take the private sector as a partner and not as competitor, with generous financial and technical support from the GoI, for leaving them entirely on their own can be detrimental to the entire aerospace industry and the nation.

Economies of the world are routinely ranked on their ease of doing business from 1–189. A high ease of doing business ranking means the regulatory environment is more conducive to the starting and operation of a local firm. *Doing Business 2015: Going Beyond Efficiency*, a World Bank Group flagship publication, in its 12th in a series of annual reports, benchmarked to June 2014, has measured the regulations that enhance business activity and those that constrain it and placed India at a dismal ranking of 142 out of a total 189 economies, from Afghanistan to Zimbabwe. Neighbour and terrorism infested Pakistan was ranked at 128 and Sri Lanka was ranked at 99. Even Bhutan and Nepal got a higher ranking than India!

Against this backdrop, the Government of India (GoI) publicly announced that it wanted to pole-vault in the rankings and land in the top 50 in the near future – an ambitious target. Were it to happen, there would be no doubt that India will unquestionably become the largest destination for foreign investment. The GoI has identified 25 industries to attract FDI and improve manufacturing, to emerge as a global manufacturing hub; it wants to start with the defence manufacturing sector, for it feels that it is the sole sector primary to the success of its ‘Make in India’ drive and to bolster national security.

Economic Sinews

A nation’s military strength is determined by its economic might. While economic strength is the main pillar of national power, the military capability of a nation also needs to be enhanced alongside to support the main pillar. Industry provides the

military with the wherewithal to fight the nation’s wars. In India, however, ever since independence, policies relating to strategic defence production have been endlessly evolving, without much to show. As a result, India continues to depend on foreign industries for its military hardware. The desire to achieve self-reliance has always been there, but the will to establish policies to achieve self-reliance has been found wanting. Constraints of technology and resources have prevented the process from fructifying, to the extent desired. Technology has become a key element of national security. It has even been termed as a force-multiplier; to deal with the broad spectrum of national security issues, putting together strategies has to be with a direct emphasis on technology.

The GoI has realised that indigenised defence production is a significant factor that provides strategic independence to a nation, thereby adding exponentially to national security. To give shape to its realisation, it has initiated a series of reforms, some of which are a continuation of those begun earlier, but have been lying dormant. The reforms are not just to energise the manufacturing sector, but also to do it to facilitate the start of joint ventures (JVs) to attract high technology investments. While the emphasis of the GoI is on the entire gamut of self-reliance in defence production, this writing will focus on the aerospace sector, for the writer being a man from the blue!

Challenges Facing The Aerospace Sector

Defence technologies and more so aerospace technologies, are normally at the high-end of the spectrum, very complex and expensive to develop and integrate; a fact not really appreciated and



**Air Marshal
Dhiraj Kukreja**

PVSM, AVSM,
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Inadequate privatisation is another important reason for the stagnation of the aerospace industry. The public sector (read HAL) may have developed medium and small entrepreneurs, but only as tier-3 and tier-4 suppliers and not developed many, or any, as tier-1 or tier-2 suppliers; as a result, the local industry's capacity for production is limited to just about 25 per cent of the demand.

Why have the governments been hesitant to implement policy changes that have been announced earlier? For an answer, one needs to go back into history, to the rationale that existed when laying down the First Industrial Policy of 1948. This Policy was accorded the standing of a statutory legislation by the Industries (Development and Regulation) Act of 1951. It was visualised that since the defence industry was critical to national security, the country needed to be self-reliant in this sector. As the business required large investments, which only the government could provide, it must remain under complete control of the government. Accordingly, the GoI invested heavily in setting up the massive empires of DPSUs and DRDO, the capacities of which match the biggest and in some instances, even the best of the world, but the output has been abysmally low. Fortunately, the situation is changing with the new political dispensation.

Policy Focus

The Science and Technology Policy of 2001, aimed to focus on revising administrative and management structures in the various departments. The 2003 Revised Policy re-emphasised the goal of self-reliance with added focus on sustainable development and knowledge-based development; however, merely acquiring technology, without appropriate levels of knowledge, has limited advantages with a negative impact on genuine indigenous capabilities. However, new measures, started by the GoI, to enhance the knowledge and skill levels of the work force have begun to yield results.

A landmark decision taken in 2001 was to allow the private sector into defence production with 100 per cent participation and up to 26 per cent FDI. This change in policy, to permit the private sector into the exclusive domain of the DPSUs, caused considerable

understood by many.

The word 'technology' is often used in a rather loose sense; it,

however, comprises of a number of hard and soft elements, which need in-depth comprehension to gather an all-inclusive picture of 'technology'. The hard elements comprise materials used, design documents, manufacturing and assembly infrastructure and other such items; these, however, do not complete 'technology' on their own. The soft elements too are numerous and include the likes of human skills, attitude to absorb knowledge, teamwork to handle new equipment, leadership and management processes. This package of the hard and soft elements is a part of 'technology', whenever one talks of technology development.

Absence of a technologically advanced and an internationally competitive industry has greatly affected India's efforts in the aerospace manufacturing sector. What little that we designed and manufactured in the past is suggestive of the 'Lambretta and Vespa' era of the yesteryears. There has been a rapid modernisation of the Indian industry in general, with a little in the aerospace sector in the last two decades or so, however, the sector has yet to acquire the requisite momentum and enthusiasm, so essential to national security requirements. Thus, the burgeoning demand of security requirements and consequent dependence on foreign supplies has been constantly increasing, due to the DPSU-bureaucratic combine that has flourished over the years.

ToT And IPRs

The push towards indigenisation and self-reliance stalled, as the Indian aerospace industry got stuck in the comfort zone of 'license production', with the bureaucracy supporting it with the insistence of a clause of 'Transfer of Technology' (ToT) in almost every contract. Little did the bureaucracy realise that a ToT gets us only modern production techniques but does not help us in getting modern technology to assist in design and development; the Intellectual Property Rights (IPRs) continue to remain with the original manufacturer. The DPSUs too, have not wanted to move out of the comfort zone, for their own selfish reasons. There is, therefore, a need for a change of policy to arrive at correct assessments and decisions across the spectrum of political leaders, bureaucrats and technocrats.

anticipation in the boardrooms of many a corporate house, but results did not flow as were expected; this limit has since been increased to 49 per cent in 2014. Prospective foreign partners of the private companies, however, demand a greater participation and incentives, if they are to share technology developed after high investments in R&D; in other words, they demand a controlling stake. Aerospace industry uses high technology and is a high-risk industry, which consequently results in high costs.

The time has come for the DPSUs to take the private sector as a partner and not as competitor, with generous financial and technical support from the GoI, for leaving them entirely on their own can be detrimental to the entire aerospace industry and the nation. As has been said earlier,

the situation is changing, with some major joint ventures between an Indian industry and a foreign manufacturer already in place and more on the anvil.

With the change in the political dispensation now more than a year old, there have been some attempts to stamp out the nexus and simplify processes and the results are slowly becoming visible. It is a gargantuan task and has to start with the MoD itself, for after all 'charity does begin at home!' The MoD has to undergo a complete exercise in reorganisation, replacing generalist bureaucrats with professional military talent and/or technocrats. The Long Term Integrated Perspective Plan (LTIPP) of the Armed Forces, a document with a 15-year horizon, should be based on a National Security Strategy, to make clear to all concerned – R&D and the industry – the technologies required being developed/acquired. Apart from the reorganisation of the Defence Ministry, there is also a need for a complete revamp of the DRDO, DPSUs and OFs. The process seems to have begun, albeit with slow progress; the review should specify the development of technology /product either through joint ventures, exclusively indigenous or with a foreign partner.

Self-reliance in defence production is the key element to India's aspirations

The DPP, in its original form, was a document that confused even the best of brains. It has been reviewed frequently, asking for suggestions from the industry, to streamline the process of acquisitions, be they indigenous or from a foreign vendor. A new DPP issued in 2011 liberalised offsets; further doubts that had arisen were clarified with the issuance of a new Offset Policy in 2013. The industry today waits with excited anticipation for the release of another version of the DPP, which hopefully will

carry the recommendations of the Dhirendra Singh Committee – a 10-member Committee of Experts to suggest amendments to the existing DPP and formulate a new policy framework. The far-reaching recommendations made by the Committee include the nomination of selected private

companies as strategic partners of the GoI, to assume the role of 'prime integrators' of defence technology for complex projects, at par with DPSUs and ordnance factories. It has suggested means to improve R&D, increase the FDI to beyond 49 per cent with adequate controls, establishment of Defence Economic Zones and, last but not the least, to cut down the size of the DPP document to about 12-15 pages.

It has been a long outstanding demand of the private industry to be provided a level playing field *vis-à-vis* the DPSUs. In a move to bolster private participation in the defence-manufacturing sector and to meet the demand of a level-playing field, the GoI has withdrawn the excise and customs duty exemptions presently available to goods manufactured and supplied by the OFB and DPSUs. This takes away the strategic advantage enjoyed by DPSUs for quoting lower rates in open bids. Many, who expected concessions similar to those available to the DPSUs and not the other way around, however, have not welcomed this move of the GoI. Time will tell, whether this move will energise the aerospace manufacturing and provide the necessary ease of doing business.





MSMEs

The world over, SMEs account for 90% of business establishments and half or more of the output and export share and generate employment opportunities accounting for close to 70% of the labour force. Hence, it is no surprise that globally, SMEs are an indispensable part of the supply chain in all major industrial sectors, defence industries being no exception. The global defence industry, which is dominated by a few Original Equipment Manufacturers (OEMs), works similarly in close co-ordination with SMEs, through a well-defined supply chain. The SMEs have innovative capabilities in niche manufacturing areas, greater flexibility, lower overhead costs and their ability to learn and absorb new technologies; just the reasons, why OEMs prefer to work with them.

In India, a large number of MSMEs serve as suppliers to the DPSUs and have a role to play in the Indian defence market, but their contribution has somewhere not been noticed. MSMEs provide the lifeline to India's most advanced sectors and are very important contributors to the economy. While the GoI acknowledges the fact that India needs to increase self-reliance in defence manufacturing in its own national interest, on the other hand, the international defence industry today is global in nature with a complex network of global supply chains. It, therefore, is imperative for Indian companies, especially MSMEs, to integrate themselves into the supply chains of national and international defence majors in order to reduce dependence on foreign supplies and also to gain a foothold in the international aerospace and defence market.

In order to achieve self-reliance in defence production and subsequently emerge as a significant player in the industry, the country needs to improve the competitiveness of its MSMEs and enhance their role in the industry. It has been finally recognised as a vibrant sector, which needs to be harnessed. The MSME Development Act was enacted in 2006 to address policy issues; a revised version is likely this year to provide impetus to this vital sector; the course correction, it is believed, coming at the insistence from the apex levels of the GoI.

From Despondency To Optimism

The road ahead to achieve self-reliance in defence manufacturing is long, but the destination does not appear to be too far. A year ago, why even some months ago just after the Aero India-2015, there was an air of despondency, which changed to one of cautious optimism. With a spate of policy changes being announced for defence exports, the setting up of a Defence Exports Steering Committee, the formulation of a Defence Export Strategy, the Dhirendra Singh Committee submitting its recommendations for a revision in the DPP, the revision of the MSME Development Act and more, are all indications of the GoI meaning business to



awaken the defence manufacturing sector, which so far had been a sleeping giant.

While the government policies appear to be on the right track, it, however, is not sufficient just to amend existing policies or put together new strategies; the shedding of mindsets and the establishment of a favourable ecosystem is equally essential. The process can be successfully brought to fruition, within a decade or even earlier, if the strategies mentioned are acted upon with a sense of urgency. This would then expand India's potential in the defence industry, more so in the aerospace sector and contribute to further securing the nation. The key is to have a long-term vision and create an environment, which motivates the private sector, shakes the lethargy of the government organisations and acts as a catalyst for growth.

Self-reliance in defence production is the key element to India's aspirations of becoming a regional or a global power. The aim to transform the country's economy from a services-based one, to be manufacturing-based, can be achieved if the issues of ease of doing business are addressed. The policies are evolving in the right direction, but a lot more is to be done, especially in the aerospace sector, on both fiscal and infrastructure fronts, to improve competitiveness, both in the short-term and the long-term.

India is coming of age, but there has to be mutual trust and mutual respect between all players. Those involved in formulating policies and those involved in implementing them, need to have accountability. Competitiveness should not be a foul word; it, rather, should spur growth. One is optimistic that foreign manufacturers, who, until a few years ago only wanted to sell to India, would be jumping over each other to set up their manufacturing in the country. Time will tell the story, which is beginning to unfold; FDI inflow from USA between June 2014 and June 2015, has equalled that of what was received between 2011 and 2014. India has the potential, the Indian industry has the potential and the aerospace community within the country has the potential. The potential needs to be tapped to ensure national security. **DSA**

A nation's military strength is determined by its economic might

HOW CAN EASE OF DOING BUSINESS IN INDIA STRENGTHEN NATIONAL SECURITY?

We need to be economically and militarily strong, as global agreements happen in the form of treaties, which are best done by negotiating from a position of strength via diplomacy which is meaningful only when backed with raw military strength and deterrence closely intertwined with the nation's geopolitical and economic/business strategy and objectives.

Defending and promoting national security stands on three important pillars: Firstly, human resources; secondly, science and technology; and thirdly, money. Money is however the most important pillar of national security. The revenues of Government are tax revenue and non-tax revenue. Non-tax revenue constitutes a small proportion of total revenue and is more uncertain. Tax revenue consists, mainly, of five taxes: excise, customs, service tax, income tax and sales tax. Excise revenue is a function of growth in the manufacturing sector; customs revenue is a function of higher imports; service taxes are a function of more activity and more transactions in the services sector; income tax and sales tax are a function of more incomes for individuals, families and corporations. Increase in tax revenue is, in a very large measure, the outcome of higher growth. When the economy is on a roll, tax revenues are buoyant and when the economy slows down, the first casualty is revenue from taxes. It is therefore a self-evident truth that growth is the key for greater public welfare and greater security.

The traditional view of security focused on the application of force at the State level and was therefore a fairly narrow view, hinging on military security. It is now widely acknowledged that there is more to security than purely military factors. Today's definition of security acknowledges political, economic, environmental, social and human among other strands that impact the concept of security.

Recent Initiatives

The Government and the Department of Industrial Policy and Promotion (DIPP) have taken a series of measures recently to improve Ease of Doing Business. The emphasis has been on simplification and rationalisation of the existing rules and introduction of information technology to make governance more efficient and effective.

The major change has been the provisions of 'National Security Clause'. All foreign companies investing in the defence, telecom and private security sectors have to sign a 'National Security Clause' that will empower the government to terminate their operations if they violate national security provisions or indulge in money laundering. This is part of the new 'National Security Clearance Policy' approved by the Home Ministry <<http://economictimes.indiatimes.com/topic/home%20ministry>> which also stipulates that in these sectors, positions such as chief security officers should be manned by Indian nationals only. The 'National Security Clause' will be built into permissions granted by the Foreign Investment Promotion Board <<http://economictimes.indiatimes.com/topic/Foreign%20Investment%20Promotion%20Board>>(FIPB) as a safeguard for 'post-investment monitoring'. The clause will be deemed to have been violated if foreign companies investing in the defence, telecom or private security sectors are found to be involved in espionage or have links with terrorists and foreign intelligence agencies or are



involved in money laundering <<http://economictimes.indiatimes.com/topic/money%20laundering>> and financial fraud. The company will be duly issued a notice if such a link is found and its contract will be terminated if the explanation is not satisfactory.

Post-investment monitoring will enable the ministry to take corrective action if security breaches are detected in the future. The new policy specifies 'clear triggers of national security concern' to be used while scrutinising such applications and identifies regions where foreign investment is not welcome, like areas in proximity of the border and vital installations. The promoters, owners and board members of these companies seeking clearance will be asked to give self-declarations that they are not involved in any serious crimes. The home ministry will no longer go into the aspect of minor crimes. These self-declarations will be vetted by Intelligence Bureau <<http://economictimes.indiatimes.com/topic/Intelligence%20Bureau>>, CBI and Enforcement Directorate and disposal of clearances will be quick.

In addition to the 'National Security Clause' some other important initiatives taken by the current Government in the last one year are as under:

- The Home Ministry has agreed to decide on security clearances of investment proposals before FIPB within 30 days <<http://economictimes.indiatimes.com/topic/30%20days>>, a long-standing demand of the finance ministry.
- Cabinet has enhanced FIPBs powers to recommend foreign investment proposals of up to ₹ 3,000 crore, more than double of earlier limit of ₹ 1,200 crore to expedite FDI clearance.
- The Ministry of Home Affairs has recently streamlined/relaxed national security clearance norms for certain sensitive sectors of the economy. The new policy guidelines are aimed at bringing about a healthy balance between meeting the imperatives of national security and facilitating the ease of doing business and promoting investment in the country.
- Number of documents required for export and import reduced to three.
- Ministry of Corporate Affairs has introduced an integrated process for incorporation of a company, wherein applicants can apply for Directors Identification Number (DIN) and company name availability simultaneous with incorporation application.
- A comparative study of practices followed by the States for grant of clearance and ensuring compliances was conducted through Accenture Services (P) Ltd and six best practices were identified. These were circulated among all the States for peer evaluation and adoption.
- Application forms for Industrial License (IL) and Industrial Entrepreneur Memorandum (IEM) have been simplified.
- Defence products list for industrial licensing has been issued, wherein large number of parts /components, castings/forgings etc have been excluded from the purview of industrial licensing. Similarly

dual-use items, having military as well as civilian applications (unless classified as defence item) will also not require Industrial License from defence angle.

- Initial validity period of Industrial License has been increased to three years from two years to give enough time to licensees to procure land and obtain the necessary clearances /approvals from authorities.
- 'Security Manual for Licensed Defence Industry' has been issued. This has obviated the requirement of affidavit from applicants.
- A checklist with specific timelines has been developed for processing all applications filed by foreign investors in cases relating to Retail/NRI /EoU foreign investments. This has been placed on the DIPP website.
- An Investor Facilitation Cell has been created in 'Invest India' to guide, assist and handhold investors during the entire life cycle of the business.
- Process of applying for Environment and Forests clearances has been made online through Ministry of Environment and Forests portals.

Linkages

Our growing economic status fuelled by a 300 million strong middle class, the demographic advantage of a burgeoning 'young population', our increasing ventures into high-technology areas such as Space and future projections of national growth peg us amongst the world's top 5 economies by 2020.

Until recently, we had taken a much compartmentalised view of national security. Each threat to national security was neatly fitted into one compartment. The first, of course, was a war with Pakistan. That was fitted into a compartment and was meant to be deterred, or defended, through the might of our armed forces. A war with China was and remains, unthinkable and therefore that threat was fitted into another compartment and reserved to be dealt with through a mixture of engagement, diplomacy, trade and positioning adequate forces along the borders. Beyond Pakistan and China, we did not perceive any external threat to our security. Other threats such as communal conflicts, terrorism, Naxalism or Maoist violence, drug peddling and Fake Indian Currency Notes (FICNs) were bundled together under the label 'threats to internal security' and were left to the Ministry of Home Affairs. Some threats were not acknowledged at all as threats to national security and these included energy security, food security and pandemics. We now need to consider our energy security, food security, technology security and social cohesion and institutions, to name just a few, when we think of national security.



Sanjay Soni

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Our armed forces are hobbled by lack of preparedness

What Is 'Ease Of Doing Business'?

Of late there has been a lot of discussion about the need for improving the 'Ease of doing business in India' and how it can spur the foreign investment in India, which in turn is needed to give a fillip to the economy. Also there is a need to analyse how these steps to spur the economic growth have implications for national security.

The ease of doing business index is an index created by the World Bank Group [<https://en.wikipedia.org/wiki/World_Bank_Group>](https://en.wikipedia.org/wiki/World_Bank_Group). Higher rankings (a low numerical value) indicate better, usually simpler, regulations for businesses and stronger protections of property rights. Empirical research [<https://en.wikipedia.org/wiki/Empirical_research>](https://en.wikipedia.org/wiki/Empirical_research) funded by the World Bank to justify their work show that the effect of improving these regulations on economic growth is strong. The index is based on the study of laws and regulations, with the input and verification by more than 9,600 government officials, lawyers, business consultants, accountants and other professionals in 185 economies who routinely advise on or administer legal and regulatory requirements.

The ease of doing business index is meant to measure regulations directly affecting businesses and does not directly measure more general conditions such as a nation's proximity to large markets, quality of infrastructure, inflation or crime. A nation's ranking on the index is based on the average of 10 sub-indices:

- **Starting a business**

[<http://www.doingbusiness.org/data/exploretopics/starting-a-business>](http://www.doingbusiness.org/data/exploretopics/starting-a-business) Procedures, time, cost and minimum capital to open a new business

- **Dealing with construction permits**

[<http://www.doingbusiness.org/data/exploretopics/dealing-with-construction-permits>](http://www.doingbusiness.org/data/exploretopics/dealing-with-construction-permits) Procedures, time and cost to build a warehouse

- **Getting electricity**

[<http://www.doingbusiness.org/data/exploretopics/getting-electricity>](http://www.doingbusiness.org/data/exploretopics/getting-electricity) Procedures, time and cost required for a business to obtain a permanent electricity connection for a newly constructed warehouse

- **Registering property**

[<http://www.doingbusiness.org/data/exploretopics/registering-property>](http://www.doingbusiness.org/data/exploretopics/registering-property) Procedures, time and cost to register commercial real estate

- **Getting credit**

[<http://www.doingbusiness.org/data/exploretopics/getting-credit>](http://www.doingbusiness.org/data/exploretopics/getting-credit)

Strength of legal rights index, depth of credit information index

- **Protecting investors**

[<http://www.doingbusiness.org/data/exploretopics/protecting-investors>](http://www.doingbusiness.org/data/exploretopics/protecting-investors)

Indices on the extent of disclosure, extent of director liability and ease of shareholder suits

- **Paying taxes**

[<http://www.doingbusiness.org/data/exploretopics/paying-taxes>](http://www.doingbusiness.org/data/exploretopics/paying-taxes) Number of taxes paid, hours per year spent preparing tax returns and total tax payable as share of gross profit

- **Trading across borders**

[<http://www.doingbusiness.org/data/exploretopics/trading-across-borders>](http://www.doingbusiness.org/data/exploretopics/trading-across-borders)

Number of documents, cost and time necessary to export and import

- **Enforcing contracts**

[<http://www.doingbusiness.org/data/exploretopics/enforcing-contracts>](http://www.doingbusiness.org/data/exploretopics/enforcing-contracts)

Procedures, time and cost to enforce a debt contract

- **Resolving insolvency**

[<http://www.doingbusiness.org/data/exploretopics/resolving-insolvency>](http://www.doingbusiness.org/data/exploretopics/resolving-insolvency)

The time, cost and recovery rate (per cent) under bankruptcy proceeding as per the recently released World Bank's 'Ease of Doing Business' 2015 report, Papua New Guinea, Pakistan, Azerbaijan, Ethiopia and Nicaragua, all ranked higher than India's 142nd rank among 189 nations. Despite the recent initiatives taken by the Modi Government, there remains an inherent need of setting right India's business ecosystem with alacrity. Historically burdened by archaic regulations, enacted in the 1950s, the Central and State governments in the country are now waking up to the reality of reforms.

Aiming to enhance the country's image as a friendly investment destination, the government along with World Bank has also released a State-wise report on the ease of doing business – a report in which Gujarat has topped with a score of 71.14 per cent. The western Indian State, three other BJP-ruled States and one led by a party ally occupied the top five places on the list, which also highlights the poor state of business environment in a large number of States. The effort is part of the government's initiatives to improve India's position on the World Bank's 'Ease of Doing Business' ranking. The government wants India to break into the top 50 at the earliest. It expects to make it to the top 100 in the next ranking.

The industry expects a greater focus on policies that foster industry development

China's Example

China had recognised the advantages of a higher growth rate early enough and grew at an average rate of 9 per cent and above since 1981. Their infrastructure has been extensively upgraded. Urbanisation has been steadily advancing and development between urban and rural areas and between regions has become better balanced. Notable progress has been made in making China an innovative country and major breakthroughs have been made in manned space flights, the lunar exploration programmes and in the development of a manned deep sea submersible, super computers and high speed railways.

According to the Stockholm International Peace Research Institute (SIPRI), China has nearly 62 ICBMs. China is reportedly developing the JL-2 SLBM for its new strategic submarines, four of which are already sailing while two more are under construction. There are reports that China has commissioned its first indigenously renovated aircraft carrier, unveiled its fifth generation stealth aircraft (the J-20 and the J-31) and tested an anti-satellite weapon once and a missile interceptor twice. There is also a report that China has developed a strategic heavy lift transport aircraft. China has a space lab in orbit and it also plans to launch 100 satellites during its ongoing five year plan. Twenty spacecraft will be launched this year including its third lunar probe and a manned spacecraft that will dock with China's space lab. There are indications that,



by 2020, China may have more than 200 spacecraft in orbit accounting for about one-fifth of the world's total. These examples are sufficient to emphasise the point that sustained high growth is the key to making a country a 'comprehensive national power'.

Growth Is Paramount

If we do not have sustained high growth over a long period of time, we will be, forever, an undernourished, undereducated, underprovided and underperforming nation. We will also fall behind in scientific and technological advancements and the gap between India and the developed world and the gap between India and other emerging countries including China, will continue to grow. We will also be constrained in our ability to defend national security against both external and internal threats.

Secondly, our armed forces are hobbled by lack of preparedness due to most of our defence equipment being presently unoperational due to lack of critical spares. Most of our tanks, planes and field guns cannot be deployed in an active war scenario. This is a worrisome state of affairs as we cannot even fight a war with Bangladesh forget about Pakistan or China! If the policies are changed to make it easier to do business, we would not have this situation. The armed forces would be able to buy spares quickly through authorised sources and keep their equipment in top condition. Therefore, ease of doing business would have a direct impact on upgrading the level of our national security.

Summary And Recommendations

This section highlights some major challenges that adversely impact the industry's performance and investment sentiment. It is critical that these challenges are looked into and addressed at the earliest by relevant departments in Government of India to ensure that the ease of doing business in India gets a boost which in turn can strengthen our national security.

Need for progressive approach in government policies and economic reforms: The industry expects a greater focus on policies that foster industry development and lead to improving competitiveness in skills, innovation, R&D, capacity building etc. Regressive policies mandating data localisation and restricting data flows across borders should also be discouraged. It is well researched and proven that trans-border data flows contribute immensely to the GDP and growth of economies.


Lift restriction on rightful import of equipment used in R&D in Engineering Projects: Industry's R&D sector has over 800 plus India-based Centres. Due to bureaucratic and regulatory issues, many of them are looking at migrating to other countries. One of the major reasons is the humungous turnaround time of more than 3 months for equipment used in R&DE projects. As there are always multiple, global teams working simultaneously on researching /solving technology problems, timelines are of critical importance. The major roadblock faced is for import of used electronics equipment under the MoEF

hazardous waste/e-waste rules. The current process of clearance is archaic and time-consuming. Multiple representations from the industry made MoEF agree that R&DE requirements are neither bulk, nor initiated by malafide intent – and can be exempt from the demanding process. While DeitY has supported this in principle, notification exempting R&D imports from such a time-consuming process is still pending.

Lift restriction on rightful import of spare parts: As India is gearing to enhance in-country IT component and sub-component manufacturing, it is essential to understand that it will indeed, take some logical time till India becomes a fully independent economy that needs zero electronics imports. As supply chains for IT components are truly globalised, as on date, IT industry in India depends on Indian manufactured and globally sourced components. Today, the IT industry is facing severe consumer warranty issues as companies are not able to export, refurbish and import refurbished IT components such as motherboards, hard disks, tape drives, Flat panel display for Laptop /Monitors, Microprocessors and other IT support related parts. As a result, consumers are facing inordinate delays in servicing of their IT products.

Remove the multiple entry barriers in public procurement policy: Members of the industry have been participating in various tenders floated by Public Sector Undertakings and other Ministries and Departments (Nodal Agencies) that have been entrusted by the Government to implement Digital India and other e-governance projects. Certain terms and conditions in Public Tenders are extremely onerous on the Bidders /System Integrators (SIs) and Original Equipment Manufacturers (OEMs). These conditions which when coupled with condition of 'zero deviation bid' either lead to a very high priced bid or non-participation by major SIs/OEMs thereby depriving the Government from evaluating some of the best in league solutions which meet or exceed their requirements.

Payment terms: Industry has been requesting that payments for Services be linked to milestones and they should be arranged in a manner which makes it commercially feasible for bidders in terms of cash flow and operations. Clear acceptance conditions for each milestone along with a reasonable deemed acceptance should be provided. Exchange Rate Variation Clause should be included in RFPs to control the impact of currency fluctuations on project financials.

As can be seen, ease of doing business is the buzzword of the current Indian Government to ensure a higher economic growth. This sustained growth over the next 5-10 years can lead to self-sufficiency as a country in a number of areas which in turn can lead to stronger and secure India. We need to be economically and militarily strong, as global agreements happen in the form of treaties, which are best done by negotiating from a position of strength via diplomacy which is meaningful only when backed with raw military strength and deterrence closely intertwined with the nation's geopolitical and economic/business strategy and objectives. 

Ease Of Doing Business In Defence

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For Strengthening National Security

To be able to make out a business case for developing futuristic equipment, which is what will eventually make the country self-reliant in defence and beef up the national security, the industry needs to know what the Ministry of Defence wants to buy or to be manufactured, the specifications and quantity of what it wants to procure and the time frame.

It is a tragedy of the times we live in that every nation, from the mightiest to the tiniest, feels threatened by its real or perceived enemies. The archetypal enemy is no more the evil state flaunting its military muscle to threaten the integrity and sovereignty of some other righteous state. In the post-cold war era, the enemy has mutated very quickly into several more sinister dark forces, threatening not just existence of the nation states but the entire civilisations and indeed the entire humanity.

Not that the prospects of conventional wars have receded. If anything, the Kargil War of 1999 has proved that a full-scale conventional military operation cannot be avoided even under the nuclear overhang. With proliferation and miniaturisation of nuclear technology, backpack tactical nukes are not a distant threat anymore.

Space As New Frontier

Militarisation is no more confined to the sea, land and air; arms race in the outer space is opening new frontiers. Even a random piece of

space debris could destroy satellites which are increasingly supporting the day-to-day life of the human race. It has grave implications for the net centric warfare, as the entire concept of C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance) is built around the robustness of the satellite communication systems.

The Geneva Protocol of 1925 prohibiting the use of chemical and biological weapons in war may be inching towards its centenary but it would be naive to believe that there are no clandestine high-tech laboratories carrying out experiments on the most lethal micro-organisms. Nor can one say that the world has seen the last of chemical weapons used with devastatingly lethal effect in 1980s in the Iran-Iraq War. In fact, as the UNHRC later confirmed the nerve agent Sarin was used as recently as in 2013 in the Syrian Civil War.

Non-state Actors

The biggest challenge, however, is that today's wars are mostly with faceless enemies, operating across international boundaries, maiming, killing, terrorising hapless populations, with or without support from some friendly states. This new enemy has no regard for protocols, treaties and conventions. The mightiest of the world powers have found, much to their cost, that this enemy cannot be tamed with military might and, of course, the UN is becoming increasingly helpless before this faceless enemy called global terror.

Global terror is not new but its brutality and lethality have never been as evident as it is now with territorial integrity and internal security of not only small and vulnerable states being threatened by it but also more powerful states feeling the heat within their national boundaries. The US, Russia, China, UK, France and practically all developed countries of the





world have their hands full with threats emanating from secessionists, religious fundamentalists and a myriad other bigoted militias whose sole ideology seems to be to show to the world that there is no limit to senseless violence against humanity.

These new dimensions of threat to national security are predicated on increasing use of technologies and the key to survival is to remain ahead of the enemy – conventional or otherwise – in terms of technological capabilities. This involves heavy investment in research and development, innovation and creating manufacturing capabilities. The industry, naturally, has to be in the vanguard of this effort.

Capital And Technology Intensive

This is the milieu in which India, like other members of the comity of nations, has to meet the challenges to its national security. In its simplest formulation, while the external dimension of national security depends on the military might and diplomatic finesse, the internal dimension is inextricably linked with economic development of all sections of the society. Unfortunately, the means at the government's command for facing these challenges are not quite commensurate with the nature and extent of the challenges it faces.

The days of the 'Hindu' rate of economic growth are certainly over and India has now been clocking decent rates of growth but its fiscal deficit – the difference between the governments revenues and expenditure – continues to be a matter of concern. It was to be capped at three per cent of the gross domestic product by 31 March 2008 but it would be a miracle if this target is achieved even in 2017-18 as indicated by the Finance Minister in his last budget speech. While economists may differ on whether fiscal deficit is good or bad for developing economies, there is little doubt that high fiscal deficit is one of the reasons for relatively high levels of inflation in the country.

One also needs to recognise that the efforts to contain fiscal deficit are often at the cost of underproviding for sectors that have vital implications for national security. The government is simply



unable to raise enough revenue to meet the demand from various sectors. This is best exemplified by India's defence budget. In the FY 2009, the difference between the requirement projected by the Ministry of Defence and the budgetary allocation made in the Union budget was ₹12453.42 crore, which grew to ₹ 79362.72 crore in the FY 2015.

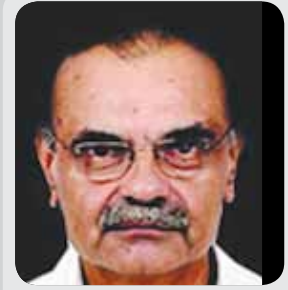
It has come down to ₹ 40,659.33 crore during the current year but once the big ticket defence contracts start getting signed and the impact of the Seventh Central Pay Commission recommendations starts unravelling, the gap could mount up once again. Since the obligatory expenses on pay and allowances, ration, clothing etc cannot be curtailed, the impact of the under-funding gets unavoidably passed on to areas such as procurement of ammunition, serviceability of equipment and weapon systems held by the armed forces and maintenance of military infrastructure. This has serious implications for the war fighting capability of the country.

Accentuated Economic Growth

Though the problems presently faced by the defence establishment have many underlying causes, the most critical factor in the entire matrix is the financial resources that can be made available by the government. There is no doubt that there is a need for higher allocations but the government has to have more money in its pocket to be able to allocate more funds for defence, which is contingent upon rapid economic growth.

This has been the main focus of the present government since last summer when it came to power in an unprecedented mandate for development and progress. With the services sector already performing at a saturation level and the prospects of rapid growth in the agricultural sector being somewhat weak, the government has rightly identified the industrial sector as the propeller for rapid economic growth in the short-term. With 'Make in India' as its core, this strategy has many favourable implications for national security, particularly for its military dimension.

The most important impact of this strategy will be on the economy of the country. As more jobs get created, income levels rise and there is widespread expansion of industrial production, the government's income through direct and indirect taxes is also bound to rise, making it possible to make higher allocations for all activities that have a bearing on national security.



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Self-reliance in defence production is a strategic imperative

This will help the defence sector in several ways, the most important of them all being achievement of self-reliance in defence production. Presently, India is the largest importer of arms. About 65 to 70 per cent of the requirement is met though imports with indigenous production largely restricted to assembling of equipment, with some very notable exceptions. The vicissitude of geopolitics has hit India in the past with denial regimes, exposing its vulnerabilities in the process. It does not bfit the stature of a country like India that aspires to be a world power and a member of the UN Security Council.

Self-reliance in defence production is, therefore, a strategic imperative. Procurement from indigenous sources could also be more cost-effective than import of defence equipment. None of this is possible unless there is a paradigm shift in the way the defence industry is promoted in India.

This wisdom has dawned upon the nation only in the recent times. In 1992, a committee, headed by the then scientific adviser to the defence minister, Late APJ Abdul Kalam, had recommended a road map for indigenising defence production to the extent of at least 70 per cent over the next ten years but not much really happened till 2001 when the defence production sector was opened to the private sector and foreign direct investment was allowed to the extent of 26 per cent.

Not Much To Show

Much was expected of the private sector after several decades of dependence on the defence public sector undertakings and the ordnance factories failed to lay the foundation of a strong defence industrial base in India and make the country self-reliant in defence. Not that the private sector has made no strides since then but all its efforts could also not prevent India from emerging as the largest importer of arms.

So, what has gone wrong? In one word, it is the absence of the right ecosystem in which the public sector could perform at its efficient best and the private sector could flourish to make India self-reliant in defence production, including development of futuristic technologies and capabilities required for meeting the myriad threats mentioned earlier.

For sure, absence of an industry-friendly ecosystem does not affect only the defence sector but making it easy for the industry to do business in the defence sector requires efforts that go beyond the steps required to improve the overall ecosystem. The biggest difference between defence and other sectors is that,

unlike other sectors, the defence market is monopsonic. This implies that apart from general issues concerning industrial licensing, taxation, incentives, labour and land acquisition laws, protection of intellectual property rights etc, promotion of the defence industry requires clarity on policy regarding defence production and procurement and procedures that complement the policy.

This has been the weakest link in the scheme of things. The 'Make in India' thrust of the government seems to have added a new dimension. A section

of the Indian industry seems to believe that what this initiative implies is that all defence equipment would henceforth be made in India by the Indian companies. This is at odds with some recent developments which indicate that the government may not

be averse to the idea of outright purchase of some equipment, weapon systems and platforms from abroad. On the other hand, the foreign companies seem to entertain the apprehension that 'Make in India' is an invitation to them to make things in India without being clear about how to do it. Some recent developments have also created uncertainty about the future role of the defence public sector undertakings and the ordnance factories.

Such confusion needs to be put at rest, along with other policy issues specific to defence, such as the offset guidelines for the future contracts, promotion of defence exports, role of the wholly-owned subsidiaries and identification of specific areas in which foreign direct investment would be allowed beyond the existing cap of 49 per cent, just to mention a few. An important policy issue which merits special mention is the need to address the real or perceived grievance of the private industry about there being no level playing field *vis-a-vis* the public sector and the ordnance factories, though the private industry also needs to accept that these government owned units cannot be wished away.

Second, to be able to make out a business case for developing futuristic equipment, which is what will eventually make the country self-reliant in defence and beef up the national security, the industry needs to know what the Ministry of Defence wants to buy or to be manufactured, the specifications and quantity of what it wants to procure and the time frame within which it would issue the tenders. This objective was sought to be achieved by the ministry through the Technology Perspective and Capability Roadmap (TPCR) released in April 2013 but it did not serve the

In the last ten years since the 'Make' procedure was introduced, not a single contract was awarded






purpose for which it was released as it did not contain the kind of information that the industry needed to gear up itself for meeting the future requirements of the armed forces.

Third, whether it is normal procurement or development of futuristic equipment, procedures need to evolve constantly with the changing environment. The defence procurement procedure that governs defence acquisition has evolved over the years. Since 2002, when the first version was released by the ministry, it has been revised several times but that has failed to remove the perception that the procedures lack clarity, are cumbersome and prone to delay at every stage of procurement. Whether this perception is fully justified or not is not the issue. The real challenge is to ensure harmony between perception and reality by addressing procedural difficulties as and when they arise and not let them linger on till they become an insurmountable roadblock.

Fourth, it has to be accepted that no procedure can ever be perfect but a dynamic leadership can make even a less-than-perfect procedure work efficiently through quick decision-making. Any notion of the civilian bureaucracy being solely responsible for all problems besetting the defence sector must be discounted. The entire procurement process is services-decision and based on collective decision-making in various committees through which every proposal moves. That being the case, what has gone wrong is something for the ministry to introspect about and find solutions to.

The 'Make' projects which involve design and development of futuristic high technology complex systems come closest to the 'Make in India' concept of the government. To its credit, this was envisaged by the Ministry of Defence a decade back but in the last ten years since the 'Make' procedure was introduced, not a single contract was awarded. This kind of vacillation could be very frustrating for those investing time, money and energy to participate in the 'Make' projects.

India stands at 142nd position in the global index of ease-of-doing business, which affects the Indian industry as much as the foreign companies. The index comprises several parameters, on each of which, barring two, India fares quite poorly: Starting a business (158), dealing with construction permits (184), getting electricity (137), registering property (121), paying taxes (156), trading across borders (126), enforcing contracts (186) and resolving insolvency (137). Only in regard to getting credit and protecting minority rights India figures at 36th and 7th position, respectively.

The government has repeatedly expressed its resolve to be counted among the first fifty. There is little doubt that it is in the realm of possibility but it would be a mistake to think that improving India's record on the parameters that comprise the global index would be enough to stimulate the defence sector. As pointed out earlier, there are issues that go beyond the global parameters which need to be addressed to make it possible for the Indian defence industry to deliver, without which it would be virtually impossible to achieve self-reliance in defence that is so critical from the point of view of national security. 



DRAGON FOOTPRINTS In Africa

The Chinese investments in Africa are considered to be exploitative in nature. China is accused of exploiting natural resources and not adding any jobs in the local economy. The Chinese entry to the African market has collapsed the already frail small and medium enterprises under increasing pressure from cheap Chinese imports.

Africa is now the youngest continent in terms of demography. It presents China with a unique opportunity – an untapped market, cheap resource hub and an unquestioning energy supplier. The Chinese government has a tradition of making the African continent the first overseas visit of the new year. This year, Foreign Minister Wang Yi embarked on a five-nation African tour in January 2015 to Kenya, Cameroon, Equatorial Guinea, Sudan and the Democratic Republic of Congo (DRC). In Kenya, the Chinese firms are carrying out a US\$ 653 million expansion of Nairobi airport; China has recently developed a deepwater port at Kribi in Cameroon; US has been surpassed by China as Equatorial Guinea's biggest trading partner by purchasing US\$ 2.5 billion of its oil;

Sudan is the fourth largest exporter of oil to China and DRC is well-known for its mineral wealth where Chinese companies have acquired key mines. But this commitment comes with strings – cheap oil for China, disengagement with Taiwan and an uninterrupted supply of raw material for the Chinese manufacturing industry. It is termed as neo-colonialism and China is accused of building an empire in Africa just as the European powers did in late 19th century.

Economic Interests

China is in pursuit of oil, gas and precious metals. It requires resources to sustain its manufacturing capabilities and a captive market for its mass-manufactured goods. Africa can offer all of these things to the world's second largest economy: about 40 per cent of global reserves of natural resources, 60 per cent of uncultivated agricultural land, a billion people with rising purchasing power and a potential army of low-wage workers. Consequently, as the Chinese economy grew, the trade between China and Africa increased by 700 per cent during the 1990s, mainly with export of African raw materials to China and import of cheap goods to Africa from China.





From 2000 onwards more than 40 agreements have been signed between Beijing and African countries. In 2012, China presented the US\$ 200 million headquarters of the Africa Union in Addis Ababa as a 'symbol of deepening relations'. There are now an estimated 2000 Chinese corporations doing business in Africa, mostly private companies investing in the infrastructure, energy and banking. In 2013, China's trade with the African continent was US\$ 166 billion and in 2014 it was nearly US\$ 200 billion, making China the largest trading partner of Africa. Oil, gas, metals and minerals constitute three-quarters of African exports to China. China is the largest investor in sub-Saharan countries and has large investments in Nigeria, Sudan, South Africa and Angola. Between years 2003 and 2011, its FDI in the continent increased thirtyfold from US\$ 491 million to US\$ 14.7 billion. In the 2014 speech at the World Economic Forum in Nigeria, Chinese Premier Li Keqiang discussed his dream of one day connecting Africa's major cities by Chinese built high-speed railways.

Higher margins in Africa have attracted state-owned enterprises and private Chinese companies to compete on gaining domination. China has made investments in the fields of infrastructure targeting key sectors including ports refurbishments, telecommunications, transport, construction and water disposal. Chinese companies are involved in Africa's energy sector, including hydropower dams in Ethiopia and Uganda, biogas development in Guinea, Sudan and Tunisia; and solar and wind power plants in Ethiopia, Morocco and South Africa. Beijing's economic focus on Africa is based on three assumptions. First, the macroeconomic situation in Africa is taking a favourable turn affording great opportunities to Chinese companies. Second, the types of goods they produce and sell have immense potential in Africa wherein the consumers are perceived to be more receptive to the type of inexpensive products that China typically produces. Third, the Chinese government and business need to secure access to Africa's abundant natural resources, particularly crude oil, non-ferrous metals and fisheries. Chinese companies are starting to tap the large mines that were recently acquired in Gabon, DRC, Namibia and few other countries.

African Oil

The IHS Energy, an oil and gas consulting firm, believes that Africa will supply 30 per cent of the world's growth in hydrocarbon production in the near future. A US Department of Energy study had projected that African oil production would rise 91 per cent between 2002 and 2025. African oil tends to be high quality and low in sulfur, making it desirable to refiners. Today one-third of China's oil supplies come from Africa, mainly from Angola, Nigeria and Sudan. Recent Chinese explorations in the Gulf of

Guinea, Angola and the Horn of Africa have the potential for an 80 per cent increase in oil exports to China in the next ten years. The investments of Chinese companies in the energy sector have reached high levels and in Nigeria and Angola, oil and gas exploration and production deals have touched US\$ 2 billion. Many of those investments are mixed packages of aid and loan in exchange for infrastructure building and trade deals. One way by which these oil-relationships have been cemented is to use what China refers to as 'special relationships'. These Chinese 'special relationships' for oil are evidently not clean, resulting in human right violations. A prime example is Sudan – now divided into Sudan and South Sudan, where Chinese supplied weapons have been used against civilian targets in Darfur as well as against South Sudan. The state-owned China National Petroleum Corporation owns the largest share of 40 per cent in Sudan's largest oil venture and the Sino-Sudanese oilfield project covers 50,000 square miles. The Sudanese government forces, armed with Chinese weapons, have used Chinese facilities as a base from which to attack and dislodge southerners in the vicinity of the new oil fields.

Selling Arms

China is currently the world's fifth-largest arms supplier and the Chinese government hopes to turn the country's arms industry into a top global player by 2020. The Chinese AK-47 assault rifles are common in national armies as well as among rebel groups such as those in eastern Congo. They have appeared in Uganda, Rwanda, Burundi, Chad and Darfur. Many African countries have shifted their source of supply from traditional providers such as Russia to China due to the competitive prices. According to Peter Wezeman of SIPRI, "Africa is an important market for the Chinese arms industry because it is a stepping stone to becoming a first-tier arms exporter." China's involvement in Africa can guarantee several advantages since the competition of Western companies is low and China can present itself as a reliable supplier that doesn't make the sale of weapons dependant on the respect of human rights. Chinese military sales have



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Maybe apart from the 'Look East', it is also the time to 'Look Africa' for India



not only resulted in fuelling civil wars but have also involved an active participation in actual conflicts. China has supported military forces responsible for the violations of international humanitarian law, such as the Forces Armées de la République Démocratique du Congo or FARDC in the eastern part of DRC and the elite Commandos in Guinea. China has provided military training in Equatorial Guinea and Chinese specialists in heavy military equipment have been sent to the country, in order to sell such weapons to Equatorial Guinea in exchange for oil.

Assisting Dictators

A key aspect of China's policies is its stance on non-interference in domestic affairs. Beijing consistently casts talk of democracy and human rights as a Western tool and demands that internal matters remain outside the concern of external actors. Central to this is the assertion by China that all countries have the right to choose their own definition of human rights. China rarely attaches any political strings to its assistance to Africa. This has opened up space for China to deal quite profitably with some heinous regimes in Africa. It effectively shores up the rule of Angola's José Eduardo dos Santos, Sudan's Omar al-Bashir and Zimbabwe's Robert Mugabe, three of Africa's most authoritarian rulers. The Chinese aid also secures African support for Beijing whenever China's own human rights record is put under the spotlight in forums such as the UN.

Maritime Silk Road

The Chinese rush to Africa is combined with an increased presence in the Indian Ocean which forms part of a US\$ 40 billion Maritime Silk Road unveiled by Xi Jinping in 2013. The projects are also called

the 'Belt and Road' initiatives and plans to connect China with Europe and Africa by road, rail and sea. The Maritime Silk Road promises an intensification of Chinese investment on the continent, especially in infrastructural projects including the construction of railways, airports and deepwater ports. The infrastructural projects to be undertaken under this framework include the development of deepwater ports in coastal cities including Bizerte, Tunisia; Dakar, Senegal; Dar es Salaam, Tanzania; Djibouti, Libreville, Gabon; Maputo, Mozambique; and Tema, Ghana. These will be key sites of the transcontinental exchange of manufactured goods and commodities between Asian and African economies along the Maritime Silk Road. In Kenya, China is constructing a railway connecting the capital city Nairobi with the port city of Mombasa. This will eventually be expanded into a regional rail corridor connecting Kenya – one of the African gateways to the Maritime Silk Road – with Uganda, Burundi and South Sudan.

African Apprehensions

Beijing, after becoming Africa's biggest trade partner has frequently been accused of an ethically deaf 'resource colonialism' – extracting the continent's mineral wealth at knockdown prices to propel its economic growth. With increased Chinese investments, more than one million Chinese, most of them labourers and traders, have moved to the continent in the past decade, creating a fear of Africa becoming Chinese or 'China's second continent'. Unlike other expatriates, the Chinese often live in segregated camps and do not mix with the locals. The Chinese investments in Africa are considered to be exploitative in nature. China is accused of exploiting natural resources and not adding any jobs in the local economy. Low-quality



cheap household products flood African markets, discouraging indigenous African manufacturing. Lamido Sanusi, Nigeria's former central bank governor says Africa is opening itself up to a 'new form of imperialism', in which China takes African primary goods and sells it manufactured ones, without transferring skills. The Chinese entry to the African market has collapsed the already frail small and medium enterprises under increasing pressure from cheap Chinese imports.

Indian Toehold


India is actively competing with China in Africa. The establishment of regional institutions like the India-Africa Forum Summit in 2008 has allowed the Indian government to reinforce its mutual ties with Africa and enhance its strategic objectives. The third India Africa Forum Summit was held in New Delhi from 26-30 October 2015 and was Modi government's biggest diplomatic outreach to Africa. In 2013, India's trade with Africa was US\$ 57 billion and Indian companies or government made investment worth US\$ 1.8 billion in Africa. African trade with India is projected to reach US\$ 100 billion this year. While India's economic involvement in Africa has been moderate, the country has enjoyed a longer trading history with Africa. This has allowed India to forge deep cultural links throughout the continent and it is currently estimated that there are more than one million Indian people living in the region. According to Brahma Chellaney, professor at the Centre for Policy Research, India has tried to "position itself as different to China, which has acquired the image of being a new imperial power." India is also expanding its military presence.

India has enjoyed a longer trading history with Africa

Along the East African coast, it has inked defence agreements with Kenya, Madagascar and Mozambique and initiated joint training programmes with Kenya, Mozambique, Tanzania and South Africa. An Indian listening post was commissioned in 2007 on Madagascar, off the coast of Africa, to monitor activities of foreign navies in the Indian Ocean Region. India has significant troop presence in many African countries under the

UN peacekeeping missions, particularly in DRC and South Sudan. During the visit of Prime Minister Modi from 11-14 March 2015, MoUs were signed to develop infrastructure on Agalega Islands in Mauritius and Assumption Island of Seychelles – both astride key sea lanes to Africa. This Indian initiative has been described as India's 'String of Flowers' to counter China's 'String of Pearls' which intends to surround India.

Chinese Expansionism

The emergence of China in Africa as a major player has security, economic and political implications for the world. Apart from challenging traditional Western interests, it offers an alternative reading of democracy and human rights that shall not benefit the average African. China with its huge middle class and a slowing economy has now reached a stage of economic development which requires endless supplies of African raw materials and has started to develop the capacity to exercise influence in Africa. It is likely that the current economic rivalry in Africa will give rise to political tension as India continues to threaten China's regional dominance. Indians and Indian investments are liked in Africa due to their appreciation of local issues, humane approach and the inherent non-exploitative nature. Maybe apart from the 'Look East', it is also the time to 'Look Africa' for India. 

Indian Defence Industry

A PERSPECTIVE

While the MoD is urging and encouraging the private companies to invest and participate in the Defence manufacturing programmes of the country, no specific assurances are being given for future orders in case of successful completion of development process/trials. Lack of transparency related to the long-term defence procurement and planning is inhibiting the industries in their plan of ramping up capacities and infrastructure for long-term future.

India bright spot in slowing global economy.

— IMF Chief Christine Lagarde

There couldn't have been a better time than now for IMF Chief Christine Lagarde to make this comment. The buzz about 'Make in India' is certainly promising new horizons of opportunities for doing business in India. The opportunity becomes further attractive with the MoD, under the PM's directive also working towards improving the 'Ease of Doing Business in Defence'. The emphasis is to increase the share of manufacturing to 25 per cent of GDP from a current level of 15 per cent and in the process, to create at least 10 million employment opportunities in Defence per year.

Need For Acceleration

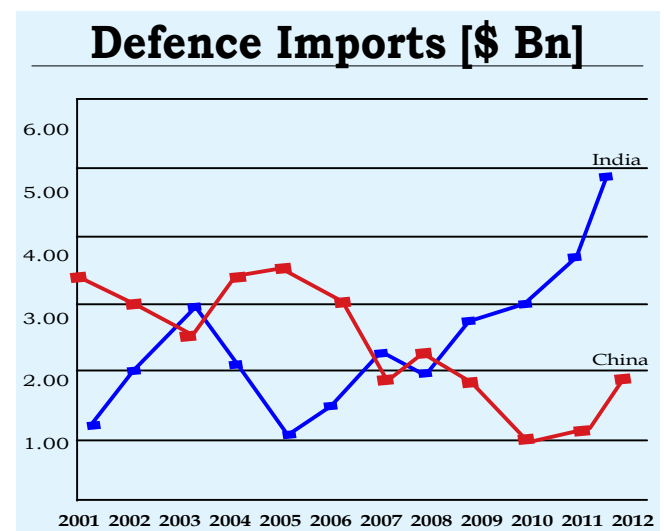
The creation of a vibrant and thriving Defence Industry Base (DIB) is a major pie of India's aspirations of indigenisation and export driven economic boost. As a nation that operates the third largest armed forces in the world with an annual budget of around 40 billion US\$, India has a nascent DIB when compared to the global benchmarks. However, the recent 'Make in India' campaign seems to have infused additional fuel in the nation's journey towards indigenisation and self-reliance in Defence. However, how much of this excitement transforms into 'on the ground' movement in terms of accelerated pace of clearing projects and expeditious placement of long awaited orders on the Indian private and public sectors, remains to be seen. This would be the true measure of the success of India's march towards self-reliance in Defence and Aerospace.

In this article, I will deliberate on the opportunities and challenges that are posed by PM and MoD's 'Make in India' initiative in the Defence production.

The focus would be on the roles that the private sector would play in this national journey towards self-reliance in Defence.

Current State Of India's DIB

India's defence budget of ₹ 2.47 lakh crore (US\$ 40 billion) for FY15-16 makes it world's eighth largest military spender. However, the point to be noted is that India is the largest importer of Defence equipment in the world with a direct import of over 60 per cent of its total requirements. In the early 2000s, China was way ahead of India in terms of Defence imports but in the past decade plus, China has gone into a major indigenisation drive with boosting up its DIB and has significantly reduced its dependency on foreign supplies for Defence requirements.





**Commodore
Mukesh Bhargava
(Retd)**

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India's DIB constitutes of mainly 9 Defence Public Sector Undertakings (DPSUs), 41 factories under the Ordnance Factory Board, 39 DRDO laboratories and a few major private players like Larsen & Toubro, TATA Power, Mahindra Defence etc. After decades of practice of nominating defence orders to DPSUs, the Government of India has finally realised the strengths of the private Defence industry and appears to be moving towards a competitive procurement model with an equal participation from the private sector in majority of tenders. However, on the ground, agonisingly slow pace of project clearance, decision-making and order placements make it extremely difficult for private companies to sustain and justify significant investments made dedicatedly for indigenised production of Defence platforms and equipment. Whereas, it is understood that positive changes do take time, even a day's procedural delay slows down the nation towards its journey of having a strong DIB with minimum dependence on foreign supplies.

It is truly heartening to note that the Government has recently cleared Defence projects worth over ₹ 1.4 lakh crore that would accelerate the induction of long pending submarines, warships, artillery guns, fighters and transport aircraft and helicopters into the Armed Forces. However, the order placements would still take another year or more for the production process to actually start. In essence the existing DIB of India is waiting for projects in the pipeline to materialise into orders to put the grossly underutilised capacity worth billions of dollars to productive use.

Challenges For 'Make in India'

Among all this hope and excitement, there are still some areas of concern that can cripple the steaming progress towards indigenisation and self-reliance in defence.

There still exists a major trust deficit in the bureaucratic segment in dealing with the private sector. A sustainable business continuity model is yet to be outlined to support competency based businesses in future to encourage and justify large capital investments from the private sector. While the MoD is urging and encouraging the private companies to invest and participate in the Defence manufacturing programmes of the country, no specific assurances are being given for future orders in case of successful completion of development process/trials. There is still no clear indication to eliminate the practice of

nomination to DPSUs and OFBs completely. Lack of transparency related to the long-term defence procurement and planning is inhibiting the industries in their plan of ramping up capacities and infrastructure for long-term future.

The other dampeners for industry to make further investments are the high cost of doing business in India due to high cost of capital, complex procurement policies and regulations, anomalies in taxes and duties, foreign exchange rate variation etc. These coupled with the inherent long cycle of procurement makes the defence projects financially very risky for the private industries.

Indian industries, private or public, are still lagging miles behind the global competition when it comes to critical technologies. Decades of lacklustre attitude in making DRDO accountable for the R&D works and insufficient investments have made India a 'backward' nation when it comes to cutting edge and critical Defence technologies. Lack of incentives for R&D also does not encourage the private sector to make further investments in development of core defence technologies. For decades the DPSUs and OFs have been the recipients of ToT from foreign OEMs do provide the Indian partners with 'know-how' but leave them grappling for the 'know-why'. This not only creates a void while developing a completely indigenised system, but also creates a mammoth problem while dealing with upgrades, spares and life cycle support. Some of the areas where the Indian industries lack the capability are:

- Gas Turbine Engine
- Aeronautics and Avionics
- Nano Materials, Carbon Fibres
- Sensors and Communications
- Missile seekers, Artificial Intelligence
- Armour Protection

Active government support and encouragement would be required to bridge these gaps in critical technologies and know-how with the industry. The table given below published in *Indian Defence Review* clearly indicates the lack of focus for R&D in India as a country.

Country	2012		2013*	
	GERD (PPP US\$ Billion)	R&D as % of GDP	GERD (PPP US\$ Billion)	R&D as % of GDP
US	418.6	2.68	423.7	2.66
Japan	159.9	3.48	161.8	3.48
Germany	90.9	2.87	91.1	2.85
South Korea	55.8	3.45	57.8	3.45
France	50.4	2.24	50.6	2.24
India	40.3	0.85	45.2	0.90

* Figures for 2013 are forecast; GERD: Gross Expenditure on R&D

Opportunities For Indian Industries

The Indian Armed Forces are expected to acquire US\$ 250 billion worth of equipment, weapons, platforms and systems in the next 7-8 years. The indigenisation diktat of the Government under 'Make in India' is expected to ensure that most of these would be home grown. This paradigm shift in the Indian defence procurement policy is expected to cut across all three Services of the country. A non-exhaustive list of some of the major programmes waiting in the pipeline for clearance is presented below.

Services	Programmes	Description	Probable Indian Players
Naval	P75(I)	6 Conventional Submarines with AIP	L&T, MDL, HSL, Pipavav
	P17A	7 Advanced Stealth Frigates	MDL, GRSE
	Strategic Submarines	6 SSNs and 3 SSBNs	L&T, HSL
	LPDs	4 Landing Platform Dock-Warships	HSL, L&T, Pipavav, ABG
	ASW-SWC	16 Anti-Sub Warfare Shallow Water Craft	L&T, Pipavav, ABG, GRSE, GSL
Land	BMS	Battlefield Management Systems	L&T, TATA, BEL
	Anti-aircraft Guns	1,600 Anti-aircraft Guns over 15 years	Bharat Forge, Punj Lloyd
	TCS	Tactical Communication System	L&T, TATA, HCL, BEL
	155 mm, 52 Cal Towed Guns	Over 1,500 Towed Howitzers	L&T-Nexter, Bharat Forge-Elbit
	155 mm, 52 Cal SP Tracked Guns	100 Nos Self-propelled Tracked Howitzers	L&T-Samsung Techwin (Declared Winner)
	155 mm, 52 Cal SP Wheeled Guns	1,100 Self-propelled Wheeled Howitzers	L&T, Ashok Leyland-Nexter, Elbit-Bharat Forge, Tata, Punj Lloyd
Aerospace	LUH	Requirement of about 200 Light Utility Helicopters	TATA-Sikorsky, Mahindra-BEL
	Radars	Surface Surveillance Radars	L&T, BEL, TATA

All the above programmes can see major participation from the Indian private and public sectors. Winds of positive changes are seen at the MoD and are beginning to show up in the interaction with the Ministry of Defence. The new Defence Procurement Procedure (DPP) is expected to address long outstanding issues like level playing field for private players with DPSUs and FOEMs, simplified procurement procedures, faster clearance of projects under Buy (Indian) or Buy and Make (Indian) categories, unambiguous offset policy, declaration of Defence export guidelines etc. Proactive interaction with the industries have started happening and there seems to be a paradigm shift in the thought process to enforce the DPSUs, OFBs and DRDO Labs to adopt an approach focused towards active participation from the industry. Some of the encouraging industry friendly policy changes that have already been implemented are liberalisation of licensing policy, streamlining of Defence export procedure, promulgation of Defence Security Manual for licensed Defence industry, simplification of Defence Item list etc. In the short-term and long-term future, some of the indicated impending improvements are:

- Further simplification of Buy and Make (Indian) and Make procedures
- Financial incentives to industries like tax holidays, R&D incentives, creation and operationalisation of Technology Development Fund etc
- Firm strategy to encourage defence exports
- Launch of 8-10 Make category programmes per year
- Promote PPP between DPSUs/OFBs, DRDO and private industries

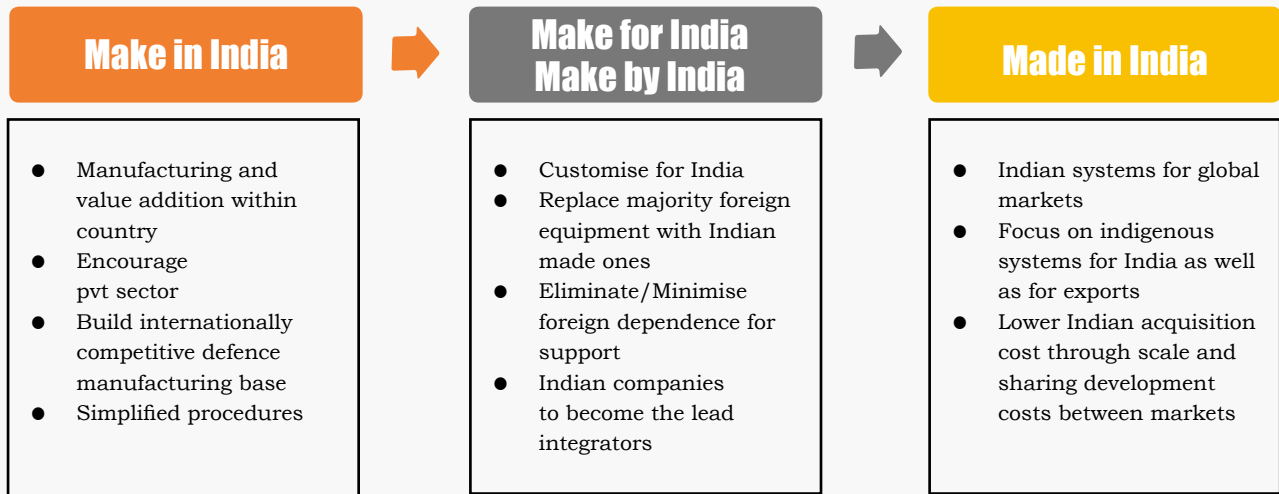
All these coupled with a rising Indian economy are expected to make the Indian defence industry more lucrative than ever before.



Focus On Indigenisation

The 'Make in India' initiative should be seen as just the first step. India still has a long way to go before catching up with the lightning progress that China has made over the past two decades as far as DIB is concerned. In the true sense, it is a three step process as follows: 'Make in India' – to urge the Foreign Original Equipment Manufacturers to set up the required infrastructure and capabilities

required in India, 'Make for India/Make by India' enable Indian industry to create Indian IPs by developing indigenous products tailored to meet the requirements of India's armed forces and finally 'Made in India' – to make globally competitive products and encourage Indian products for exports. The following flow chart depicts the road map that should be followed to achieve this:



Recommendations

A noble idea like 'Make in India' requires path-breaking steps to be put in place to make it a success. The idea of 'Building our Defence' rather than 'Buying our Defence' would become a reality in near future only if an unprecedented collaborative approach between the Government and the industries is made to operate in an effective manner.


It is recommended that the following steps can help make Indian DIB at par with the developed world:

- Approach for evaluation of competitive tenders.
- Financial strength to be linked to bid estimates.
- Price preference for domestic companies.
- Rationalisation of taxes.
- T1-L1 (Best technical capability – Least price) approach to be considered for defence tenders.
- Life cycle costs to be the basis.
- The most capable (technical, financial and with proven track record holders) private sector companies in selected critical sectors to be identified as Strategic Partners (SPs) to MoD. Such companies would be urged to develop capabilities, give assured orders and work alongside the MoD to negotiate ToT and work share with FOEMs. The process of selecting the SPs need to be rationalised and fast tracked to operationalise this concept ASAP.
- Global majors in advanced countries are encouraged to spend at least 10 per cent of their revenues in R&D whereas Indian majors like L&T, TATA, Mahindra etc presently spend only a fraction of this amount. Government should give heavy incentives to private companies to encourage R&D



Process of selecting the Strategic Partner needs to be rationalised and fast tracked

that would lead to create indigenous IPs and products.

- Encourage creation of an organisation/process similar to Defence Advanced Research Projects Agency (DARPA) in the US that works in coordination with, but completely independent of Military R&D. This would encourage both small and large businesses to participate in R&D. 

How Will Ease Of Doing Business In India STRENGTHEN NATIONAL SECURITY

An important aspect to be addressed is the ownership of Intellectual Property (IP). This is critical not only for meeting the need of long-term 'Life Cycle support' required by Defence Forces at a fraction of the costs that are being paid today to Foreign OEMs but also hedge against denial regimes that can suddenly reappear at time of war or if India wants to export Defence equipment.

Across the world, any nation's security is strongly rooted to its economic and social security. The rise and fall of world powers through history, either the Great Roman Empire or the Greek or the pre- and post-World War II greats the USA, UK and the recent rise of China and the decline of Russia and UK has all been preceded by their rise in economic power or its decline.

The other critical factor – social security – is also highly co-related with the economic strength of the nation to provide jobs, feed the hungry and keep the disparity among its citizens' living conditions to a minimum. History has ample evidence to show how economic unrest leads to social unrest thus disturbing a nations harmony.

In an era of more and more integrated economic activity, a country that provides ample opportunities, resources, a stable, transparent and peaceful environment for business will prosper in economic growth.

Falling Index Of Ecosystem

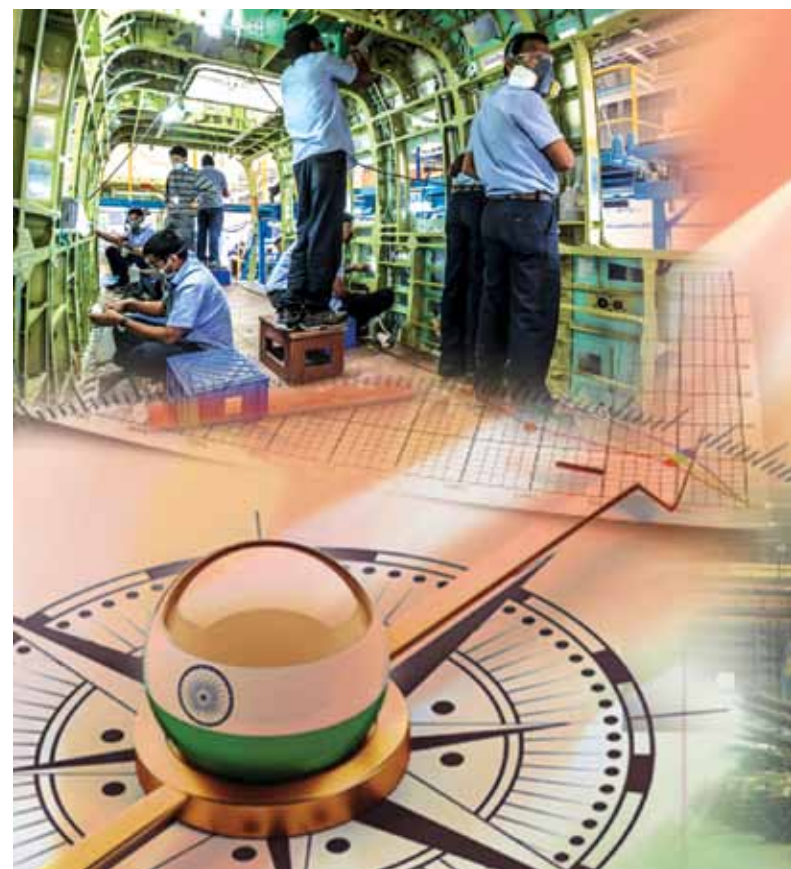
In current global environment, India is the fastest growing large economy. However, its rank among the world in ease of doing business is abysmal. India has gone down two notches in 2015 to 142nd position (from 140th in 2014), lower than the much troubled neighbour Pakistan's ranking (128) and worse than the regional average (South Asia – 134).

In order to increase the availability of economic factors of production – the land, labour, capital and entrepreneurship – issues such as a conducive tax regime, incentives to invest and high cost of capital coupled with foreign exchange volatility need to be appropriately addressed. This will create an ecosystem that will be attractive and sustainable for economic activity which is imperative for a nation to flourish. Among all the industries, independence /self-sufficiency in food, energy and Defence are considered critical for a national security, where the dependence on foreign nationals is minimal.

These industries, particularly energy and Defence require high capital and technological innovation to stay ahead and meet the required deterrent to avert any unpleasant outcomes. For India, which is placed in one of the most volatile regions in the world, self-sufficiency and independence in Defence is highly critical if it were to secure its national interests in its neighbourhood and beyond.

Imports And Dichotomy Of 'Ease'

For long, India has been dependent on foreign countries for its Defence needs. Even after it was denied supply of spares and critical ammunition during war times due to sanctions we did not move swiftly towards developing our own Defence technologies. Today, India is the largest importer





of arms in the world and expected to remain so in the near future (total imports of India in the last three years is ₹ 83,458 crore with 88 per cent of the amount being spent in imports from USA, Russia, Europe and Israel). This not just drains our foreign exchange reserves and thus create stress on the nation's current account balance but also, loses on opportunity to create millions of jobs, as Defence (manufacturing) has one of the highest multiplier effect in manufacturing domain. We must take inspiration from our neighbour, China, which has not only turned itself from being the largest importer to one of the top ten exporter nations as far as Defence equipment is concerned.

Hon'ble PM's call on 'Make in India' with a particular focus on Defence sector is a step in the right direction. However, the key question is whether we read the Honble PM's call of 'Make in India' as mere 'Manufacture in India' or as 'Design/Develop and Manufacture in India.' Even from purely job-creation perspective, it is crucial to note a Nasscom-Deloitte study deduction that suggested a multiplier effect on jobs in high technology industry is found to be 1:4 (one job created in high-tech industry creates four more jobs in the supporting industry).

Developing a local industrial complex will provide the needed impetus to increasing the indigenous component/systems in Indian Defence equipment and ultimately take India towards its dream of self-reliance and subsequently exports. However, this needs a favourable ecosystem not just from policy perspective but also from policy implementation perspective. One may have the best policies and procedures in place

in the country but without appropriate implementation framework, this will only remain a lip-service and like in the last decade, no real change in our 'import to indigenisation ratio' will be evident.

Promote Private Sector R&D

It is now a known fact that India cannot achieve its potential in Defence manufacturing if it does not encourage private sector participation to the fullest. The industry requires decades of investment in R&D to develop world-class capabilities in high technology driven Defence industry/manufacturing. Though the country may have to continue to depend on more advanced nations for its short to mid-term requirements, it needs to focus on building local capabilities and capacities for its long-term objectives/needs and to absorb the imported technologies. Hence, India needs to find a right balance between meeting its immediate Defence requirements and achieving self-reliance. These are near impossible to achieve if the private sector industries are not taken on board.

Though the government has been proclaiming that it wanted to create a competent defence industrial base with strong participation of private sector, things have not moved at the pace that we would like it to be. Recently there have been changes in the policies to create level playing field for private players such as withdrawal of tax exemptions to DPSUs and notification of exchange rate variation (ERV) to all categories and these steps are highly appreciated. However, a lot has been left to be desired.

Despite the word at the highest level, nomination to DPSUs continues to be a reality. There are serious issues that plague the private industry with respect to DPSUs, such as ERV on existing contracts – DPSUs get it but not the private sector or competing with OFB in Buy and Make (Indian) RFPs where the ToT and the entire capex is already funded by MoD while private sector is expected to include it in the bid. With the existence of such issues, it is near impossible for private industry to be competitive. Private industry is always willing to compete, even if it is with DPSUs and OFBs – all we ask for is level playing field while we compete. Competition should be encouraged and that will bring in the best efficiency in India as a nation.

Innovative Growth

Hon'ble Prime Minister has provided the country the right platform in the form of 'Make in India' while keeping Defence as one of the key areas to realise the maximum advantages for long-term economic and Defence security for the country. Though the



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India's rank among the world in ease of doing business is abysmal



intention and policy statements seem to have the heart in the right place, its the environment that is not conducive enough to create any impact on the ground realities. Our Procurement Procedures, intentionally or unintentionally, conspire to buy foreign equipment, for example:

Inverted structure in taxes and duties: Finished goods attract zero taxes and duty while value addition in India attracts Excise Duty, Service Tax, CST and VAT (If basic cost of an item is 100, when we purchase it from a foreigner, cost is 125.64; if private sector does 30 per cent value is added. In case of DPSUs (ED Exempt) it is 116 with 70 per cent import but goes up to 120 with 30 per cent import.

ERV in existing programmes: Following persistent push from the private industry, MoD in DPP 2103 has already notified ERV for new RFPs which we welcome. However, this needs to be made applicable retrospectively to Indian Primes who are already executing/have bid for RFPs in earlier DPPs and are bleeding due to high volatility in foreign exchange in the past few years. This, if not done at the earliest will reduce the capability of the private players in enhancing their capability/capacity to participate in future programmes thus negating the objective of enhancing private industry participation.

Apart from addressing the key issues such as the few described above, to create impetus in indigenisation, the focus should rather turn towards capturing high value in the value chain than mere low-end job creation. India should be mindful on the path it needs to take, if it wants to be self-sufficient and become a hub for export of Defence technologies, it needs to participate higher up in the value chain and not go down the path of leveraging the labour arbitrage. For example, in spite of being responsible for final export of all Apple products to US, China only captures 1.6 and 1.8 per cent (of iPhone and iPad respectively) of the total value while with Design and Marketing Apple captures 58.5 and 32.5 per cent of the total value of iPhone and iPad respectively. Thus to become an international hub for exports, India should first build its capability in developing world-class defence systems that can compete at global platform.

Under-funding In Defence Allocation

Over the decades, since independence India's Defence allocation has always stayed below the required level. Moreover, it has been in decline over the last five years in terms of percentage of GDP. The Defence allocation has come down to 1.74 per cent of GDP in 2014-15 from 2.35 per cent of GDP in 2009-10. In 2015-16 budget the allocation has been around US\$ 40 billion, a mere 7.7 per cent increase from last fiscal year.

Though India has been on the eighth spot for the share of world's highest military spending (2014), it is well below its neighbour China (which holds the

second position). Moreover, majority of the budget allocated is consumed as revenue expenditure. In fact, this year, only ₹ 6070 crore (~7 per cent) has been allocated for new items under capital acquisition while ₹ 71,336 crore will go towards already committed liabilities.

This does not augur well for the ambitious acquisition plan laid out to modernise Indian Defence forces. However, recent push by the government for Make programmes will give the required impetus to funding that the private industry is looking for. For any major programmes, industry needs to invest in advance to develop systems and participate in NCNC (No cost No commitment) trials or down-selection phase (in Make programmes) to prove its viability. Considering 5 to 7 years of procurement cycle and at least 2 years of development cycle prior to that, private industry needs to bear the cost of capital for almost a decade that too in a country which has one of the highest cost of capital in

Proposal to involve private industries as Strategic Partners in the Defence sector is a welcome move

the world. This coupled with the inherent capital-intensive nature of Defence industry makes the sector unviable for industry unless a flow of guaranteed orders without much delay are assured. Defence skills are niche in terms of technology and can easily be utilised in export of services. I am afraid if procurements in Defence sector are not expeditiously processed, neither will Armed Forces get the

much-required equipment nor will industry be able to hold the expensive capital (both, men and machines) for too long. Thus, I strongly recommend that Defence should be treated at par with the infrastructure sector and be permitted for all tax incentives that accrue to the infrastructure sector. This may require not only Defence Ministry but also Finance Ministry to recognise the issue and work in tandem to create a conducive investment environment for the Indian Industry.

Another important aspect to be addressed is the ownership of Intellectual Property (IP). This is critical not only for meeting the need of long-term 'Life Cycle support' required by Defence Forces at a fraction of the costs that are being paid today to Foreign OEMs but also hedge against denial regimes that can suddenly reappear at time of war or if India wants to export Defence equipment. It is also pertinent to note that the life cycle cost of equipment is typically 4-5 times the capital procurement cost. Hence the real value proposition of a Make programme for Armed Forces is to reduce the Life Cycle Cost (LCC) and also improve the availability of the equipment with better control on spares and subsystems. The above will also bring India close to its ambition of exporting 'Indian Defence Products'. These issues are intertwined with India's status as the emerging third largest economy in the world and our national ambition of having a seat in the 'Security Council'. **DSA**

THE THEME

HOW WILL EASE OF DOING BUSINESS IN INDIA STRENGTHEN NATIONAL SECURITY

As India embarks on a massive modernisation and upgradation drive for the defence and security forces spurred by the 'Make in India' initiative of prime minister Modi, the most crucial component of the whole exercise is going to be 'Ease of doing business in India' and all the attendant policies, procedures, rules and regulations along with a stable and supportive political and business environment. Incisive, thought-provoking articles by leading experts and thought leaders do full justice to the theme of this edition.



THE COVER

A discerning agglomeration of defence and security equipment that strengthen national security. Symbolic representation of currencies of leading OEM countries converging towards India represented by ₹ conveys the centrality and importance of India for the OEM countries. Straight lines of the creative highlight the reality and requirement of uncomplicated and straightforward business practices.



NATIONAL SECURITY

VS

MAKE IN INDIA

Our economic prosperity is the biggest security of people and the country and for that to be realised robust indigenous manufacturing base for defence is a must. 'Make in India' for defence sector must be seen as a national aim and therefore all arms of the government have to play their part without prejudice to the past.

The 'Make in India' mantra of the Honourable Prime Minister for the Armed Forces platforms and equipment is first ever opportunity since independence to Indian Business Organisations to prove their mettle in a sector which has security implications for our country. This is not to say that the opportunity did not exist or it was not utilised by the IBOs, they did when it came their way; what is different is that now it is across the board, the Government is serious and is bringing about the regulatory changes which were seen as bottlenecks. It still remains a challenge given the watertight system of our functioning inheritance. The prospect of making it in India often raises the debate 'will it be financially viable business model?' These are answers which will have to be found as India moves on. Obviously export laws and military aid policies to friendly countries will require reworking. India must move along these lines to remain relevant in the world theatre.

How Secured Were We?

The missing of industrial revolution is one big negative of our colonial past. Therefore, in 1947 we began with platforms built mainly by the British which were

in the inventory of the Allied Forces. Similar stock was handed out to Pakistan, unaware that these two countries will be using these platforms against each other in the future. Future was not too far, it came in 1948! Was capability of any weapon system a secret to these two countries? Answer is NO. Third country was the UK which knew all about capability of platforms and people who operated it, they often worked secretly to benefit one against the other.

Our approach to seeking independence was nonviolence and *ahimsa*, it has had adverse lasting impact on the polity and the bureaucracy made full use of this political misunderstanding and uses it to date. The government of the day went about in the right earnest by establishing Public Sector Units to create infrastructure for manufacturing defence platforms. Our non-alignment policy prevented us from acquiring best manufacturing processes and production engineering methods and transfer of contemporary technology. The country which came to our rescue was the then Soviet Union. However, Soviets had their own limitations in parting with technology or providing state-of-the-art manufacturing facilities in India. It essentially remained buyer seller equation and at best



license production which did not provide for transfer of design, development and manufacturing, leave aside further research for progression. It was a tall task for India. On the other hand Pakistan took full advantage of India's indecisive non-aligned democracy and aligned herself quickly with USA and began acquiring weapon platforms and systems to balance the Indian military superiority in the region. It was the height of Cold War and the US utilised this opportunity to weaponise Pakistan primarily to prevent communism spreading southwards of what is now Central Asian Republics. It suited Pakistan as it gave her the hardware required to maintain balance of power against India.

Private Sector Ignored

As one can appreciate, had we begun acquiring technologies for high-end weapon systems then, we would have been more secured. Today we would not have been found wanting against Chinese looming threat and concerns thereof. Till very recently ie couple of years ago the government in power was happy procuring electronic systems from abroad but would not engage private sector for such ventures on the grounds of security concerns. It was difficult to fathom as to how an imported electronic equipment was safer and secure compared to an Indian private sector manufactured gadget. This is one reason why our private sector never matured to compete with the best in the world in spite of being capable and willing. It was only in the domain of DPSUs to manufacture electronic equipment. It overloaded them to extremes resulting in very poor product support and long lead times for production. Also, it gave the government of the day an opportunity to park money in the coffers of PSUs and earned interest to be projected as credit balance.

The world geopolitics impacted India's security concerns even further. During war against China in 1962, the then Prime Minister Nehru found himself in deep waters in mustering resources to prevent the Chinese movement into Indian territory. His government's apathy towards security was thoroughly exposed and yet matters did not improve much. In 1965 US clearly supported its ally Pakistan by providing spare parts for its arsenal. In 1971 again it was the US which was threatening

to bring in their aircraft carrier *Enterprise* into Bay of Bengal when Indian Armed Forces were on the verge of liberating Bangladesh. It was intervention of Russia and some bold move by the Armed Forces that the people of Bangladesh were independent.

Support System Collapsed

At the end of Cold War and demise of the Soviet Union, India ran into trouble to maintain force levels considered necessary for our national security. Our entire range of weapon platforms and firepower assets were of Soviet origin. The industries which supported the weapon manufacturers in Soviet Union were spread across the union, the breakup of the empire resulted in these support industries falling into many different countries not all in the Russian camp. The entire support mechanism collapsed. This was a wake up call for India. It was realised as to how important it was to make platforms and systems within the country and to diversify the source of import in the interim. But the Russians

had already penetrated our system to the extent that the military would not see beyond Russia; politicians and bureaucrats were happy dealing with them for reasons more than one. There were many logistics delegations which were sent to the friendly countries of the erstwhile Soviet Union to fish for spare parts for every platform the armed forces possessed. We were too dependent and never really negotiated with the Russians for transfer of technology, develop our own design, development and manufacturing processes.

We lost the opportunity of recovery from missed boat of industrial revolution. The DRDO



Vice Admiral Shekhar Sinha

PVSM, AVSM, NM, BAR, ADC (Retd)

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The interest generated amongst the big business houses is visible





was chugging along at a slow pace. A lot has happened but not enough to make us secure sufficiently. Our nuclear test was greeted with sanctions by most of the advanced countries. This resulted in the poor logistics support to the Western origin weapon platforms and systems that we had, to the extent that UK imposed sanctions on supplying few US patented components even when there was no request from the US. Well, this wake up call shook up the entire country. Yet, the private sector was not permitted in platform manufacturing process though the DPSUs were faltering in delivery of systems both by time and cost overruns. The government of the day continued to live under Russian influence for too long.

Will Security Improve With 'Make In India'?


No country in the world has become great and powerful without its own strong defence manufacturing base. Indigenous manufacturing insulates the security preparedness from ill effects of imposition of sanctions. It ensures better availability of platforms since indigenous industries, particularly SMEs, would be supporting the logistics chain. It improves opportunities for indigenous research, design and development by generating a new stream for the scientific community. It also helps a country maintain confidentiality of the systems design and critical parameters which could be a source of disaster if it fell into hands of an adversary. During Iran-Iraq war it was alleged that *Exocet* missiles did not explode after hitting the target because the warheads were electronically deactivated by the country of origin. These apprehensions are nullified if the entire critical mass is made in the country. The present government has taken bold step by

facilitating the private sector to participate in the manufacturing of defence platforms and equipment. The Defence Procurement Procedure is under amendment. The interest generated amongst the

Our economic prosperity is the biggest security of the people and the country

big business houses is visible. There have been acquisitions and mergers of companies to support the national cause. The first positive outcome of indigenous effort is the repair and upgrade of EKM

(Kilo class) submarines in India. The Russian builders of the submarines, who will be responsible for repairs, have selected Pipavav Shipyard as Indian partner for this purpose. This would enhance the capability of a private yard as also develop skills for future manufacturing of submarines. Subsequently the repair facility could be offered to friendly countries that have similar platforms. For India, there would be much cost saving both for the repairs and future manufacturing. Likewise Tata Airbus are in the process of manufacturing transport aircraft which would replace the ageing *Avros*. There would be a whole lot to follow, the 70 per cent import on account of defence forces needs to be brought down to 30 per cent as per the plans.

This is a good beginning. Our economic prosperity is the biggest security of the people and the country and for that to be realised robust indigenous manufacturing base for defence is a must. This would facilitate friendly countries too in procuring Indian built platforms. 'Make in India' for defence sector must be seen as a national aim and therefore all arms of the government have to play their part without prejudice to the past. It is beginning of providing robust and foolproof security to our nation. Our motto: Nation First And Always. 



Procurement Delays

THE BANE OF NATIONAL SECURITY?



**Cdr Sunil Chauhan
(Retd)**

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We seem to be tying ourselves into knots and going into a bind yet again. The possibility of India developing all the key Defence technologies indigenously is a utopian thought. There can never be zero imports in Defence, only substantial reduction.

John Le Carre's classic masterpiece *Tinker, Tailor, Soldier, Spy* is a complex intrigue, a bewildering plot with an overload of spyspeak and dense puzzle of espionage, anxiety and paranoia. The Indian Defence procurement business is similarly a bewildering plot of complex procedures, rules and regulations, endless demands, tedious documentation, protracted timelines generating great anxiety, fervour and paranoia.

But the similarity ends there. While *Tinker, Tailor, Soldier, Spy* is pieced together with utmost skill and all pieces of the puzzle falling neatly into their place, the intrigue in the Indian Defence procurement goes on endlessly.

Repetitive Revisions

The present government led by the mercurial Prime Minister Modi,

as part of his 'Make in India' campaign, identified Defence and Aerospace as the most promising segments to push indigenous production and manufacturing and this generated yet again great fervour, anxiety and paranoia amongst the 'Buyer' and the 'Sellers' and all other aspiring players. Hectic discussion, parleying, lobbying by Indian companies, foreign OEMs, MSMEs, repetitive high-end seminars and hoarse evocations have characterised the last year. Each player has separately put forth strong arguments for protecting their business interests.



Indeed very truthfully and playing to its promise, the Indian government while focusing on its key agenda of 'Make in India' and 'Ease of doing business' including the Indian Defence sector, have in the past one year taken some steps in order to catalyse manufacturing by liberalisation of industrial license regimes, facilitating easy export and promoting investment into the sector. Three measures do stand out – a list of defence items requiring industrial license was notified in June 2014, a security manual for licensed defence industries was also notified the same month and two months later the FDI limit for the defence sector was increased to 49 per cent with a provision that even higher FDI could be permitted if it provided access to state-of-the-art technology.

New DPP Recommendations

Later in May 2015, Defence Minister Manohar Parrikar appointed a 10-member committee headed by former Home Secretary Dharendra Singh, to review the Defence procurement policies and procedures and to recommend fresh guidelines with a view to giving an impetus to 'Make in India' and remove bottlenecks. The committee's mandate was to recommend new or suggest changes to existing provisions of DPP 2013 to provide guidance on embedding 'Make in India' goals into the DPP 2015. Unlike the previous committees constituted earlier by the MoD to look into specifics of Defence sector or on reforms related to Defence finance, the Singh

Committees scope was to cover the whole gamut of Defence procurement. The Singh Committee submitted its report in late July 2015 and in a noteworthy departure placed the report in public domain.

The committee indeed has made several important recommendations, ranging from protecting Indian interests, encouraging increase in indigenous content to encouraging all types of Defence industries large, medium and small. The most significant one is the nomination of selected Indian companies as 'strategic partners' of the government to assume the role of 'prime integrators' of Defence technology for complex projects at par with DPSUs and ordnance factories or receive technology transferred from foreign vendors in large Defence contracts. The 'strategic partners' will be selected from the existing industries, possibly two each in six identified domains (aircraft, warships, armoured fighting vehicles, complex weapons, network-centric solutions and strategic materials) and supported with all help by the government. The committee is also of the view that the indigenisation ratio of 'Buy (Indian)' acquisitions should be progressively increased with each revision in the DPP (already the committee has recognised that this document would again be revised quite shortly!) and recognising Defence procurement as 'strategic' and different from routine government purchases. The report has set 2027 as the target year by which the goal of

70 per cent self-reliance can be achieved to coincide with the current Long Term Integrated Perspective Plan (LTIPP) 2012-27 of the armed forces.

But what do these measures augur for Defence procurement and acquisition? Do we see speedier acquisitions and fast track programmes? Or are we in the doldrums again?

Conceptual Dichotomy

There is clear conceptual dichotomy. Spurring indigenous manufacturing alone cannot make up for the technology demands of the three Services and make up the urgent and critical shortfalls. The principal aim of procurement is timely capacity building of the armed forces and not endless efforts, with no end in sight and no contracts signed. The Defence Minister Manohar Parrikar's stand was a revised and simplified Defence procurement procedure, which would expeditiously provide the military badly needed equipment, while boosting indigenous Defence production. In his own words he wanted to go for the jugular. Indeed he has. What is accruing is yet another set of complex rules and procedures and policies for procurement and a maze of conditions and stipulations that a potential 'seller' would need to negotiate. The 'Buyer' at his end would need to go through tedious identification process to peg each procurement case into its respective slot.

The slew of measures that are in the offing are being seen differently by the foreign

US global players are notorious for refusing ToT under own DoD rules

companies and governments than they are being seen by the Indian industry. In a game of margins and profits, which is the game all business houses play and sustain on, each of the major players, Defence Public Sector Undertakings (DPSUs), Ordnance Factory Board (OFB), Indian private industry, foreign companies and not to forget, the Micro, Small and Medium Enterprises (MSMEs) are at cross purposes and will continue to be at cross purposes. This is an undeniable truth and must be understood by the policy makers. Foreign companies would prefer the path of least resistance – the G2G (government-to-government) agreements or the foreign military sales route or an open competition where they have an edge being the technology holders, the big Indian companies want the Raksha Udyog Ratna (RUR) status, the DPSUs and the OFB are smug in their present status and the MSMEs seem to be obsessed with offsets.

Private Sector Characteristics

It is a no-brainer that the Tier 1 Indian private Defence companies are neither Defence business dependent nor established system integrators. Most are hived off divisions and units from their parent companies. Their Defence sales are less than two per cent of the total sales in their balance sheets. Most of their Defence business is confined to component or sub-system supplies though there are exceptions of



award of a few low to medium technology projects like rocket launchers, display systems, sub-systems for Defence electronics etc. These companies presently have little domain expertise, rudimentary to moderate Defence industrial experience and absolute zero investment in research and development for Defence technology. Even with the opening up of the Defence manufacturing to private companies since early 2000, the Indian private companies did not invest in high-end Defence as it made no business sense to invest and compete in a domain where they had no experience. They were happy to be awarded low-end to medium projects. However, now with the recommendations and shortlisting as 'strategic partner' they could be assured of Government support and funding (read taxpayers money) to provide them with foreign technology, JVs, infrastructure and assured captive markets. One fervently hopes for this paradigm shift, but use any standard methodology of management forecasting and one can see this shift would, if at all, take over two decades plus. So a target of 2027 is far from reality. Possibly 2050 could be reachable if the Indian business houses show seriousness of intent along with adjusting their 'top line' and 'bottom line'.

Technology transfer is not a magic wand that will make Indian Defence companies domain experts. And in any case foreign OEMs will not share critical latest technology and the intellectual property rights (IPRs). Business never supports altruism, only business plans and commercial accreditations. Indian companies at best will get lower level of technology transfer and attempts to enforce high-end ToT will only invite protracted dealings, negotiations, techno-legal arrangements all of which are excessively time consuming.

High-end technology transfers can only be enforced through G2G transfers for which the government will have to create the right political climate and leverage. Subsuming ToT to DPP clauses and 'strategic sectors' and restricting foreign OEMs as only sub-contractors will not ensure ToT, rather it will lead to stagnancy in the procurement. Unless the private companies are willing or mandated by the government for aggressive research and development, reverse engineering with failures and create a long-term road map one cannot see the targets being met. Incidentally its a universal fact that business houses dont like rules and regulations and would prefer to be left unfettered to make a quick buck.

Higher FDI And ToT

There is indeed a sense of willingness on part of the foreign OEMs to invest in India to design and manufacture Defence equipment systems to address the Indian and global markets. However they are presently wary. Though FDI in Defence manufacture has been increased from 26 to 49 per cent, this is still not attractive enough for the OEMs to invest in India.

India has attracted merely US\$ 4.8 million in FDI in the Defence sector in 2015, despite the hike in the outlay from 26 to 49 per cent. Without a controlling stake, technology companies will not risk the foundation on which they have built themselves and on which their position rests. OEMs are yet to set up manufacturing bases and bring in front-end technology though some JV intents have manifest for companies like the Tatas, Mahindras, L&T and Reliance. Most of the proposed JVs so far remain inflated MoUs and agreements with scant investment and creation of resource base to characterise as a full-fledged JV.

There are also serious concerns for the foreign OEMs on the real cost of doing business in India – the requisite skill levels and economy of scale and the quality deficit in skilled manpower to absorb technology. Defence industry is burdened with a host of taxes including on imports of goods and machinery which are varied down to state level.

Creating Special or Defence Economic Zones (SEZs or DEZs) for Defence production does generate some hope but parameters related to commencement of production such as registering property, construction permits, sourcing power remain a concern as in these cases state and district agencies are also involved. Despite the measures announced by the Government for 'ease of doing business in India' India has dropped in the World Bank Doing Business 2015 Index from the 140th position to 142nd in the past one year, indicating the truthful extant conditions.

Export Hurdles

There is also very little clarity on whether the equipment designed and produced in India will be allowed to be exported to the global market. The current export policies specific to the Defence sector are very restrictive and require multiple approvals from various government ministries and departments. The Indian market alone will not be sufficient to sustain Defence manufacturers in the long-term and if global supply chains are expected to be shifted to India, then India will need to liberalise the export polices of the Defence sector.

More Procurement Delays

The recommendation of 'strategic partners' for complex Defence projects is fraught with great risks and danger. A Defence industry or any other industry, needs to be driven by market forces and restricting 'strategic partners' to specific domains could create monopoly with spiralling costs like in the case of the *BrahMos*. These recommendations would face stiff resistance from the industry in time to come and if it were indeed to be implemented there would be severe logjam in the specific procurement project.

With each business house in a frenzy to stake its claim and lobby for the big ticket programmes, no thought is being given to the legitimate

A common platform based on trust, open two-way interaction and cooperation may finally end the misery



techno-legal and commercial demands that govern the functioning of the potential technology partners – the foreign OEMs. From a position of prime ‘sellers’ foreign OEMs are now faced with new challenges in doing business as Tier 1 sub-contractors or ‘Sellers’ to the ‘Indian Prime’ the contours of which are as yet ill-defined. The foreign vendors will no longer have the bargaining power or influence in the buyer-seller relationship and less chance of tapping into government policy. With the enlarging field of competition foreign OEMs would need to redefine their strategies and business plans and rework on their alliances and existing collaborations. All of this will manifest in a highly altered Defence procurement ecosystem with unwarranted delays in the acquisition process.

French Manoeuvre

There seems to be smug belief that the foreign OEMs are hungry for business and only need mild exhortation for technology transfer. Foreign OEMs and other investors are unlikely to bring in foreign direct investment and chip in with transfer of technology without adequate safeguards to their business interests and end up becoming minority stakeholders in some JV. This will not happen and one can see protracted negotiations that could well stretch to over many years before the contract is signed like the *Rafale* G2G announcement by the government for 36 aircraft. It is many months now since it was announced by Modi with much fanfare and despite many rounds of discussions, the Inter-Government Agreement is yet to be signed, with the French side clearly rejecting most of the Offset and ToT conditions. The previous award of the contract itself states its case with *Rafale* outrightly not accepting HAL demands for certifying the aircraft made by HAL here in India.

Buying Obsolescence

The critical challenge is on how to amalgamate and fit the foreign OEMs into the scheme of things and achieve synergy. What will the foreign OEMs ‘Make in India’ and how will they sell what they make? And how will they retain their brand? Will they, under exhortation, decide to set up manufacturing units in India through a JV and start manufacturing in partnership with the Indian company a product *suo motu* without guaranteed sales? This is unthinkable. The only procedure to tap into the Indian Defence market is the DPP and this document alone cannot provide answers to the role of the foreign OEM under the ‘Make in India’ paradigm. And what happens if the foreign OEMs refuse ToT? Raytheon, Lockheed Martin and other US global players are notorious for refusing ToT under own DoD rules and target the foreign military sales route, often ‘selling’ a


technology which is a rung or many rungs down the latest. In any case this exhortation to global firms does not seem to be in tune with the objectives of the Defence production policy and the procurement procedure being put into place with the ‘Make in India’ initiative in conflict with the policy of indigenisation of Defence production by promoting Indian industry.

A policy document and set of procedures that should have been directed towards enabling easing procurement and acquisition of the requirements of the three arms of the Defence Services, has now become an instrument to spur on indigenous production rather than ‘speedy procurement’.

The measures taken and announced thus far have become a complex web of policies, rules and directions with far too many stakeholders in what should have been a simple ‘Buyer-Seller matrix’ that will tie-up the actual procurement and acquisitions in knots. The ‘Buyer’ indeed is left high and dry and now will have to negotiate through mandated ‘strategic partners’ the Indian private companies and DPSUs, that presently have no real extant capability in high-end Defence technologies. While each business house is salivating at the prospect of the large bite of potential Defence business in India, their investments and steps for developing the requisite infrastructure will be much restricted. Unless assured of a business translating into a contract they will be playing a wait and watch game.

Central Issues

The problem should have been seen in two separate perspectives: 1) Equipping the Defence Services on fast track especially to make up the present critical shortfalls in their combat power and 2) Developing the Defence industrial base in India within a realistic time frame. Instead, by seconding the former to the demands of the latter, the Indian Defence procurement is yet again headed for troubled waters.

We seem to be tying ourselves into knots and going into a bind yet again. The possibility of India developing all the key Defence technologies indigenously is a utopian thought. There can never be zero imports in Defence, only substantial reduction. The pragmatic approach towards fulfilling India’s Defence requirements would be to adopt a healthy amalgamation of import, indigenous development, ToTs, JVs, offsets and, in some cases, technology acquisition. Public Private Partnership, JVs with foreign OEMs and design houses will require bolder policies such as FDI ceiling higher than 50 per cent and the political will to mentor and hold together the different stakeholders who are often at cross purposes. Unplanned indigenisation without taking into account our capability and technology absorption capacity will result in severe deficiencies and failed systems. Only an integrated vision and approach of all stakeholders built on a common platform based on trust, open two-way interaction and cooperation may finally end the misery of the Indian Defence Services which are constantly plagued by shortages of equipment like fighter aircraft, artillery guns, helicopters, night-vision devices and anti-submarine capability. 



PROCUREMENT PROCEDURE

Undermining National Security?


National Security is an amorphous entity, very much like the old adage of six blind men trying to understand what an elephant is by touching different parts of the animal. However, for the military leadership in a restricted sense it encompasses a nation's military independence in actions. While foreign policy and economic capability add to this independence, it includes the ability of the military leadership to choose a course of action, sometimes unwise, which it believes is in the interest of the nation's security.

When we talk of ease of doing business in India and National Security in the same sentence, the first question that springs to mind is the degree of autonomy that the Generals have in charting a course in this direction. Is it the tail wagging the dog? Are the Generals forced to draw up military policy, because they have limited operational freedom in their area of expertise? Does the political system ensure that military men are seen and not heard? Why are there so many hurdles in getting equipment or manpower in the manner that is asked for?

We would suggest that India is caught up in a colonial time warp. In many, more advanced, countries processes and policies have evolved by devolving power to the Generals, even if in a limited way. In tandem with that is the accountability of the civil servant and polity for failures (and successes). On a more commercial side, doing business with

the Ministry of Defence, which we understand is one of the primary cogs in the machines of National Security, is stifled by the lack of transparency. Does the Government want the equipment or not? Does the Finance Ministry agree to the projections that the MoD (and Services) are making for budgetary allocations? Why are we delaying procurement cases, in some cases even after bids have been opened after seemingly unending delays (and extensions)?

In many cases the answer is lost in the maze of bureaucracy, citing 'National Security' for deliberate opacity, where the nation cannot openly declare that the country will not be acquiring vitally needed guns, ammunition, aircraft or ships. There are enough cases to cite, for example the MMRCA aircraft, artillery guns, submarines, air defence equipment, even the size of the projected Mountain Strike Corps etc.

Lastly, on a lesser note India as an emerging economy with lower labour rates, blithe promises of *Mangalyan* type development costs by our scientists (and bureaucrats), when procuring from overseas seem to suggest that we can ignore their cost of development and the cost of money for the years spent in marketing and sales. The fantasy land of 'third world' prices and ability to negotiate from the position of buyer is the primary cause for the protracted negotiation that we see happening around us. 

In many cases the answer is lost in the maze of bureaucracy

BLUEPRINT

To Strengthen National Security

Not denying the intent and acknowledging the progress it is also important that we reflect the correct view. This would take me to the 'Make in India' workshop held last year. A number of initiatives were to be undertaken during the first year. The progress on these initiatives is lagging well behind the targets.

The global Defence industry evolved mostly in the nations that participated in the Second World War. Some of the others who joined this were Israel and China. India's track record in this has not been very flattering. India is the ninth largest spender in Defence but the Defence Industrial base in the country remains rather narrow limited to DPSUs and OFs. Nearly 40 per cent of total defence budget spent on capital acquisitions, has 70 per cent import content either directly or indirectly thus making us a net importer of security and at the receiving end of technology denial regimes and sanctions. It also gives us the distinction of being the largest importer of Defence equipment in the world. It is no secret that even after 68 years of independence the Indian armed forces are equipped with armaments, equipment and platforms acquired from foreign countries, with Russia, Israel, France and US leading the pack amongst others.

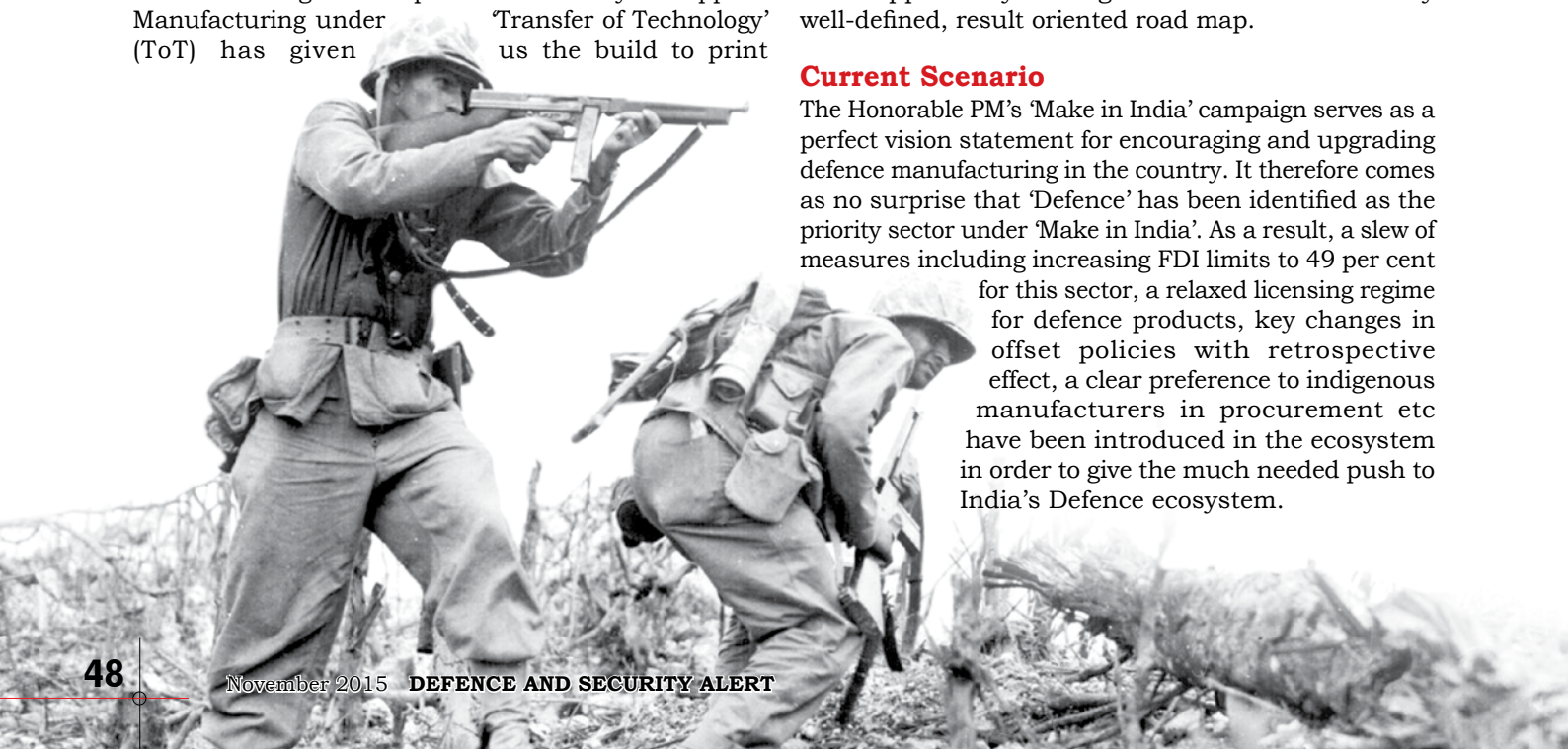
This abject external dependence on foreign supplies for key technologies and platforms has put India in a very vulnerable state of national security. Not only are we at the receiving end of technology denials but are also having serious problems of life cycle support. Manufacturing under 'Transfer of Technology' (ToT) has given us the build to print

capability but has not encouraged domestic R&D which is so essential for a vibrant Defence Industrial Base (DIB). As a consequence of this we are not in a position to maintain or upgrade our military hardware.

It is also well known that it is hard power in the backdrop which helps a nation leverage its soft and smart power and our massive arms import has only aided our inability to exert our prominence and autonomy in the changing world order. As a fallout of this, India has perpetually lagged behind the world leaders in Defence technology. This gaping void in national security capability can only be filled by establishing a vibrant Defence Industrial Base (DIB) in the country, which will help attain self-sufficiency in critical weapon systems. Also strengthening the Defence economy would further enhance India's Comprehensive National Power (CNP), which will help deter all kinds of future threats challenging India's sovereignty and security. Fortunately for us, the incumbent government is seized of the fact that hard power is inexorably intertwined with technological advances residing in the country which in a technologically deficient nation can happen only through investments backed by well-defined, result oriented road map.

Current Scenario

The Honorable PM's 'Make in India' campaign serves as a perfect vision statement for encouraging and upgrading defence manufacturing in the country. It therefore comes as no surprise that 'Defence' has been identified as the priority sector under 'Make in India'. As a result, a slew of measures including increasing FDI limits to 49 per cent for this sector, a relaxed licensing regime for defence products, key changes in offset policies with retrospective effect, a clear preference to indigenous manufacturers in procurement etc have been introduced in the ecosystem in order to give the much needed push to India's Defence ecosystem.





To be fair to the establishment, the progress in the last one year has been more pronounced and significant as compared to perhaps the whole of last decade before that.

Elements Of Transformation

Einstein once famously remarked that, “To do the same thing the same way and expect different result is madness”. We need a paradigm shift and as such we need to do things differently. There is clear intent demonstrated by the present government but that intent needs to get translated into action. The five essentials for transformation and paradigm shift are: Vision, Capability, Incentives, Resources and Action plan. Lack of any one of these would have an adverse effect on the transformation. Fortunately the intent has been shown and we are expecting a vision and mission statement shortly.

Capability and Resources are the reflection of the industry maturity. Indian industry has demonstrated its capability both nationally and internationally. Indian success in the space sector, driven on the shoulders of Indian industry mostly in the private sector, is a clear demonstration of the capability. Internationally there are groups like Kalyani Group which have demonstrated that Indian manufacturing in engineering and automobile sector is at par with the best in the world. Interestingly, in India today, all these three drivers are working steadfastly in their roles to arrive at their common goal.

Efforts By The Government

This leaves us with the remaining two drivers – Incentives and Action Plan, both of which are subsets of ‘Ease of doing Business’. Predominantly a state function, these are basically catalysts to encourage all stakeholders to upgrade their stake in nation building. Lack of these drivers would lead to a slow paced progress with sluggishness settling in the environment and making things lose their steam and sheen. ‘Ease of doing Business’ is the driver which is capable of propelling the efforts of all stakeholders to the desired levels. It also helps to uplift the inertia of the private industry to enter and invest into a capital intensive sector like Defence.

This fact has been recognised by the State and the Department of Industrial Policy and Promotion (DIPP) has been in the vanguard of undertaking major reforms to promote defence manufacturing and promoting ease of doing business under ‘Make in India’ initiative. They have made the process of applying for Industrial License (IL) completely online and this service is now available to entrepreneurs on 24x7 basis at eBiz website without human interface. Continuing with the momentum, DIPP has so far issued 73 industrial licenses in defence sector during last one year (June 2014-2015), against 50 Licenses granted during 2011 to May 2014. These include 16 proposals with proposed investment of ₹ 613 crore, cleared in recent Licensing Committee

meeting chaired by Secretary DIPP in June 2015. The government has also increased the initial validity period of Industrial License for Defence Sector to fifteen years, extendable up to 18 years in view of the long gestation period of Defence contracts to mature. All of these measures are now expected to give a boost to the private participation in the vast opportunities available for defence manufacturing in India. Various state governments, including Andhra Pradesh, Karnataka, Maharashtra, Telangana, Madhya Pradesh etc are also actively scouting for investors from the defence sector and giving various fiscal and non-fiscal incentives, rebates on infrastructure investments and lucrative skill development opportunities in order to facilitate ease of doing business in their respective states.



Col Rajinder Bhatia (Retd)

The writer is President and CEO, Kalyani Group.

‘Make In India’ Initiatives


Not denying the intent and acknowledging the progress it is also important that we reflect the correct view. This would take me to the ‘Make in India’ workshop held last year. A number of initiatives were to be undertaken during the first year. The progress on these initiatives is lagging well behind the targets.

While we are aware that it is work in progress for number of initiatives, it is equally important that timelines be met. The innovation often rests in start-ups and MSMEs. It is worth noting that the number of start-ups in the Defence and aerospace sector are perhaps the least in the country. We need to ensure that we operationalise the Technology Development Fund and also provide thrust to the MSME sector by providing adequate financial initiatives.

Journey Has Just Started

No nation aspiring to be even a regional power can expect to achieve it without being substantively self-reliant in defence production. What is needed for that is appreciation of the characteristics of the defence

industry and coordination among the multiple stakeholders. India needs to adopt a long-term approach to prepare a policy regime that would encourage India’s best firms to enter in the field of Defence production and promote innovation, efficiency and cost cutting. The ‘Ease of doing

business’ outlook which the incumbent government has taken upon itself as a challenge by doing away with procedures, rules, regulation and red tape along with zero pending licenses would facilitate business in India, resulting in manufacturing of complex systems and hence strengthen national security. We have taken positive steps towards self-reliance and national security but the journey has just started. *Jai Hind.* 

We have taken positive steps towards self-reliance and national security but the journey has just started

'MAKE IN INDIA' IN DEFENCE

Is It Just A pipedream?

Radical changes required in the Indian mindset, procurement policies and procedures to make it happen.

Since India is lagging far behind in cutting edge military technology, we need to be humble, practical and ruthless. For real 'Make in India' in Defence, we need to junk the DPP, redesign the offsets programme, demolish the undue importance of DRDO and DPSUs and enhance the role of India's private sector.

Global leaders laugh when India talks about its super power ambitions. It may have a large population and a growing economy, but is almost entirely dependent on foreign-made weapons for its security. Its good to have an ambitious vision, but not to follow it up with appropriate action is self-delusional.

Persistent Opaqueness

'Make in India' may work well in consumer products like electronics and automobiles but manufacturing weapons of destruction is a totally different ball game. It is a government-to-government (G2G) or business-to-government (B2G) industry with just one buyer – the Ministry of Defence (MoD). It is highly regulated and not very transparent.

The MoD in India wields disproportionate power to decide goalposts, boundaries and rules of play. It can change the rules or even call off a match at its free will. No aggrieved player can dare to take the MoD to court. The only option OEMs have is to petition their heads of government to intervene. The Dassault-Rafale fiasco is a case in point.

The Indian Defence industry is a fledgling one wherein many promoters have taken the leap of faith, pumping in billions of dollars. The

capability gap between the global and Indian OEMs is significant and may take decades to bridge. Most promoters are struggling to recover their investment.

No global OEM is keen to transfer latest cutting edge Defence technology to India. Global OEMs have sunk in billions of dollars over decades to perfect their technology. They can't simply hand it over to India and create a competitor for themselves. Severe export restrictions from their respective governments add to the trouble.

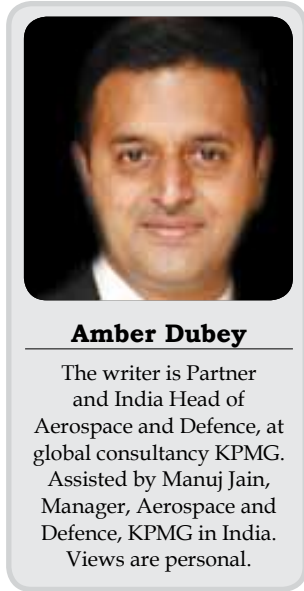
The global OEMs' primary focus is on boosting GDP and jobs in their parent country, not in India. Our 142nd position in World Bank's ease of doing business rankings doesn't help either. The technology sold to India is typically a mature one, which thanks to our snail paced Defence Procurement Procedure (DPP) becomes even more redundant by the time it is actually inducted. Most global OEMs would love India to remain as a perpetual importer. How do we break the impasse? Here are ten simple action steps.

Ten-point Action Plan

1. Develop a clear vision and action plan

'Design in India' is more important than 'Make in India'. A clear vision and focus on execution are key. It will be a 20-year marathon and not a sprint. There may be many failures on the way.





Amber Dubey

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In the early 90s, China was no different from where India is today. A relentless focus on self-reliance has transformed it, in a short span of 20 years, into the third largest arms exporter behind USA and Russia.

China reduced its standing army by a whopping 1.7 million troops, enhanced its Defence research budget, worked closely with the private sector; reverse-engineered and indigenised critical technologies. It developed its own fighter jets, military satellites, aircraft carriers, submarines, battle tanks, missiles and sensors.

2. Establish an Aerospace Commission

India needs an independent Aeronautics Commission in line with the ones for atomic energy and space. The Commission should be headed by a technical expert and should report directly to the Prime Minister. It will work closely with industry, universities and government labs, very similar to the DARPA model in USA.

3. Focus on technology and not fancy gizmos

The Aeronautics Commission should identify 5-6 technologies, critical to India. These could include advanced materials, stealth, avionics, sensors, cyber-security, precision guided missiles etc.

For new programmes like the Regional Transport Aircraft (RTA) and Light Utility Helicopter (LUH) etc, we should use commercial off the shelf (COTS) technologies from global OEMs to the extent possible and then

go for phased indigenisation. Doing R&D on every small system dissipates energy, time and scarce national resources. The Light Combat Aircraft (LCA) programme is a case in point.

4. End the monopoly of DRDO and DPSUs

The over-dependence on DRDO and DPSUs with a complete sidelining of the Indian private sector has done immense damage to our country. Other than the top 5-8 labs of DRDO and some of the sensitive DPSUs, the rest should be privatised or simply shut down.

The mighty US Army doesn't depend on any DPSUs. Defence R&D and manufacturing are best done by the private sector where efficiency and profitability are the key drivers; not cadre, seniority and connections.

5. Junk the DPP

The new government was expected to bring in big-bang reforms in India's outdated DPP. The DPP 2013 is open to many confusing interpretations, leads to years of delays and has a straightjacketed offsets programme that has added negligible value to India.

Most Indian Defence companies are reduced to making non-critical, non-sensitive aero-structures for global OEMs to help the latter meet their offset obligations. The height of irony is India's largest aerospace company - HAL - manufacturing front doors for a commercial aircraft of a global OEM.

The Dhirendra Singh Committee report on DPP reforms turned out to be a damp squib, as many expected. Staffed by retired bureaucrats and military officials, it had zero representation from Indian companies. The bulky report is merely a compendium

of industry demands and recommends formation of more committees. It does suggest some reforms in terms of strategic partners etc but does not address the fundamental flaws of the DPP.

Each defence equipment is unique; and there are just 3-4 world-class manufacturers of the same. Applying a straightjacketed offset requirement of 30 per cent to 50 per cent is impractical. India's capacity to absorb offsets could be 10 per cent in some cases and even 100 per cent in others. Defence Minister Manohar Parrikar's idea of doing large defence procurement through G2G deals is welcome.

That plus other reforms, may help reduce the procurement period from DAC clearance to contract signing to under two years. Today, a procurement lead time of 5-6 years in India is considered normal. The cost of lead time is already built in the costing of the global OEMs. The risk of rupee devaluation and obsolescence of technology is borne by India.

Like in the Western countries, MoD should consider using professional consulting firms for procurement. They bring in deep knowledge of supply chain, finance and legal issues; and would work under the overall supervision of the MoD. This may lead to faster deals, tighter contracts and lower cost.

6. Negotiate offsets at the country level

India negotiated offsets specific to an OEM and an equipment; and not on a country-basis. The OEMs in turn passed on non-critical assembly technology to Indian companies to discharge their offsets.

India should consolidate its current and likely future requirements from supplier countries on a G2G basis and demand establishment of complete assembly lines in India. The country in turn may be offered long-term assured offtake and freedom to export to friendly countries. Look at China. It has huge ideological, strategic and commercial disagreements with US and EU. Yet, the only place other than US and EU that Boeing and Airbus plan to carry out aircraft assembly is in China. In the end, economics overrides ideological bombast.

The objective of the global OEMs is work towards maximising their profits. If India can provide them a low-cost environment, assured offtake, reduced red-tape and freedom to export, why would they not come here?

Operationalising this would require vision, courage and flexibility. Any 'give and take' to make OEMs establish their plants in India may be misinterpreted as a surrender, sell-out and a scam. The government

No global OEM is keen to transfer latest cutting edge defence technology to India



should not be excessively worried about negative opinions as long as the deal is above board and in India's long-term interest.

7. Raise FDI limit in defence to 74 per cent

Defence technology is so complex that the biggest military power – USA – has permitted 100 per cent subsidiaries of non-US companies like Airbus, BAE, Rolls Royce, Saab etc, albeit with several checks and balances.

The Modi government has already wasted 16 months on pointless debate on FDI. The writers have been, unfortunately, proved right in their assessment in June 2014 that increasing FDI limit from 26 per cent to 49 per cent would bring no meaningful investment, other than being a cosmetic bullet point in the governments 'Make in India' brochures.

Opposition to higher FDI from DRDO, DPSUs and the 'Bombay Club' is perhaps driven more by insecurity than logic. Global OEMs that are not keen to 'Make in India' are also happy with the 49 per cent limit – that gives them a 'convenient' excuse.

The term 'ownership and control' gets disproportionate importance in India. We have zero ownership and control over the global OEMs from whom we import fully-built aircraft, radars and missiles. But if the same OEM wishes to assemble the equipment on Indian soil through an owned subsidiary, we call it a 'security threat'!

Real control comes not from Indian ownership, but from time-tested conditions like mandatory local staffing (say 90-100 per cent), local value addition (say at least 20 per cent), export controls, walk-in rights, exit restrictions etc.

FDI in defence should be at least 74 per cent. The ecosystem thus created will allow Indian professionals to learn, innovate and export back to the OEMs, *a la* the auto and IT sector. Twenty years from now, some Indian Defence companies may rise to become competitors to global OEMs.

8. Joint development programmes

Global programmes such as the Joint Strike Fighter, Eurofighter *Typhoon* etc and commercial platforms like Boeing 787s and Airbus 380s are built by several companies collaborating across the world. India should push hard for co-development programmes with USA, Russia, UK, France, Israel etc.

India should then get its best brains to work with global OEMs and create joint technology that helps

both parties. The *BrahMos* programme is a shining example. ISRO, which suffered global sanctions after Pokharan-II nuclear tests, is now routinely launching satellites from US, EU, Japan, Singapore etc.

Most OEMs in US and EU have several Indian staff involved in leadership positions in R&D and manufacturing. MoD and private sector should proactively reach out to such NRIs and bring them back. They will bring in rare knowledge and a fresh perspective.

9. Enhance demand pull from commercial aviation

The aerospace industry thrives on strong local demand. Defence and commercial aerospace have a symbiotic relationship. Our financially distressed aviation sector needs to improve.

The Ministry of Civil Aviation (MoCA) is working on the draft National Civil Aviation Policy (NCAP 2015). Reduction in high jet fuel costs, taxes on Maintenance, Repairs and Overhaul (MRO) and airport charges; promotion of regional connectivity, tourism, helicopters and corporate jets etc would create more demand for aircraft. Market leader IndiGo has placed the worlds largest order for A-320s. India's passenger traffic growth of 21 per cent during January-August 2015 is the highest in the world. All this strengthens India's case to demand global OEMs to establish their aircraft assembly and associated ancillary units in India, *a la* China.

10. Create aerospace clusters

Defence production needs world-class infrastructure – uninterrupted power, water, land, logistics network etc. India requires 4-5 such aerospace clusters. Central and State governments need to work with anchor OEMs to identify the right locations and facilitate its development

through PPP, fast clearances and fiscal incentives.

Defence industry should be given 'infrastructure' status. This shall facilitate access to cheaper loans and incentives, *a la* sectors like IT, automotive, ports,

roads etc. Given the huge import dependence, government should also consider a 'deemed export' status for Defence industry for a ten year period, extendable in future.

Time For Quick-fixes Is Over

Since India is lagging far behind in cutting edge military technology, we need to be humble, practical and ruthless. For real 'Make in India' in Defence, we need to junk the DPP, redesign the offsets programme, demolish the undue importance of DRDO and DPSUs and enhance the role of India's private sector.

We should facilitate greater investments from global OEMs, through reforms in FDI limits and 'ease of doing business'. We should collaborate with them, innovate and then better them in certain critical technologies, over the next 20 years. An independent Aeronautics Commission is critical, *a la* our space and nuclear programmes.

Its time for radical policy transformation. Quick-fixes may not help. **DSA**

Defence production needs world-class infrastructure – uninterrupted power, water, land, logistics network etc

DEFENCE

Is Serious Business



Ravi Kumar Gupta

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Adequate demand is a prerequisite for private enterprise to sustain. A production figure of one lakh per year may be rather small for a company manufacturing motor cars, the number of battle tanks needed to be manufactured in a year may be just a hundred or so. Economics of running an enterprise for design, development and manufacture of military hardware cannot be the same. The State has to make the business economically viable through appropriate policies.

Even with spending merely 1.75 per cent of its GDP on defence – far below a respectable level befitting its status as an emerging global power – the world's largest democracy and home to nearly one fifth of the world's population; India is the largest arms market. Principles of economics would suggest a copious indigenous demand should have been the most potential driver for growth of a vibrant and robust domestic Defence industry, should have led to capturing sizeable chunk of global arms bazaar and have contributed very significantly to domestic job creation and national economy. And why not? United States of America, spending over 600 billion US dollars annually on Defence, the largest in the world, has the most vibrant and flourishing Defence industry (largely private), while its imports constitute barely 3 per cent of global imports. In contrast, India has been overdependent on imports contributing to nearly 15 per cent of global imports to meet about 50 per cent of its needs of military hardware under capital head.

All The Contributing Factors

Wrong priorities and presumptions with respect to needs of national security and ways of their fulfillment, centuries of foreign rule accompanied by utter neglect of modern education and industries with systematic destruction of traditional strengths, lack of resources; the list of reasons behind this irony is long and characterised by interwoven complexities. Whereas opinions may differ on which factors contributed to

what extent, urgent need to correct the situation is obvious, generally accepted and well understood.

A glance at world's top countries that are innovating and manufacturing military hardware will indicate that with the exception of the likes of Russia and China, bulk of such hardware is designed, developed and manufactured by their private sector companies, albeit with active support from their respective governments, especially in terms of conducive policies and procedures, help in creation of infrastructure, ensuring adequate business and research grants. No wonder, these countries have been occupying top slots in World Bank's rankings on ease of doing business. In contrast, India ranks a dismal 142 among 189 countries, with poor performance on most of the parameters covered by the World Bank report released in 2015 (except for protecting minority investors where its ranking has jumped to 7th in 2014 as compared to 21st in 2013).

Overly Concentrated Effort

In post-independence India in the backdrop of zero technology base, the Indian planners chose to follow a socialist pattern for economy and industrial development, reserving many sectors of industry exclusively for government owned PSUs. Defence was one such sector from which, till recently, Indian private enterprise was kept untouchable and giant 'Defence Public Sector Undertakings' were created in each of the crucial area for manufacture of major weapon systems and platforms. The Ordnance factories under the Ordnance Factories Board were

expanded and Hindustan Aeronautics Limited, Bharat Dynamics Limited, Bharat Electronics Limited, Bharat Earth Movers Limited and many others were set up under the umbrella of Department of Defence Production. These emerged and continue to be nearly sole source of major military hardware from within the country. In the absence of any technology base, military systems were imported along with licensed production with a hope that absorption of technologies will take place with eventual indigenous designs and developments. Unfortunately, that by and large failed to happen as ToTs practically remained transfer of drawings, fabrication equipment, essential tools and jigs and setting up assembly lines with critical hi-tech subsystems and components sourced from abroad. Above all, know-why was totally missing.

Looking at the example of combat aircraft – *Gnats*, *MiGs*, *Jaguars*, *Mirages*, *Sukhois*, system after system – the same story went on repeating. The learning process remained limited to local manufacture of some of the parts, which nevertheless helped to some extent local industry to grow. Cases of most other major systems such as helicopters, tanks, infantry combat vehicles remained the same.

Meanwhile, Defence R&D Organisation – DRDO was created in 1958 with main mandate to carry out research and development in this

area – indigenously develop required technologies and design and develop advanced systems based on such technologies though with the restrictions of having to go to predefined production agencies, ie Ordnance Factories and DPSUs for production. Nevertheless, for production of components and some subsystems, the DRDO wherever feasible, encouraged and involved private sector, leading to active participation of over a thousand private sector enterprises bulk of them being SMEs.

Focus Turned To Private Sector

Realising the need to involve private sector, the Government of India took decision in 2001 to open the doors of manufacturing sector for Defence equipment to private sector, though under the controls of license regime. The policy shift soon began to make its impact albeit slowly. The approach gradually began to shift from a mere buyer or licensee to insistence for joint-production and even joint-development as well as know-why if possible.

Nevertheless, the results have remained far below a desired level and a leading factor has been the policy framework. Though consistent but piecemeal efforts have been made since then in right direction as reflected in the Defence Procurement Procedures, Defence Production Policy and related steps, much more needs to be done and done faster. Thus, a turnaround leading to building a robust manufacturing base and rapidly eliminate dependence on imports, would obviously need to, ‘make it easier to do business’ in India.

In general, the topic of ‘Ease of Doing Business’ in the country has been a matter of extensive debate and nearly all the involved issues are relevant for Defence industry as well, though not enough. There are many issues specific to Defence sector that need attention to make the process of developing and producing military hardware viable for the private industry, some of these are subject of present discussion.

The Ills Plaguing Public Sector

Level playing field is a must for competition to be fair and yielding desirable results, particularly when it comes to promoting innovation. A level playing field, as often perceived, does not mean identical set of rules for public and private sector industries, since both the sectors in our country have gone through a past with problems unique to the sector and often not in consonance with business acumen or established economic principles (Similarly, identical set of norms cannot be applicable for foreign players as preference has to be for our own industries. Even countries like USA and other advanced countries protect and promote their own industries). Thus, Defence Public Sector Undertakings (and the Ordnance Factories) till recently enjoyed monopoly while production know-how largely coming packaged under license from foreign manufacturers. This gave them advantages

State has to make the business economically viable through appropriate policies





of assured market and avoidance of circuitous route of R&D. Barely any gain in competence-building, especially in terms of know-why and capabilities in *ab initio* designing and execution of establishment of production line resulting in perpetual dependence on imports, have been crippling disadvantages (the second one contributing greatly to teething troubles in manufacturing indigenously developed products). The public/government sector industries had to work within bureaucratic set-up and compulsions typical of a government department: over-staffed (social considerations), slow decision-making process due to long channels and multiple authorities, poor compensation packages (relative to private sector and abroad) leading to difficulties in attracting and retaining quality workforce (engineers and technologists) being few examples. The private sector in Defence on the other hand, in addition to issues faced by rest of the private industry, had to face the policy keeping them untouchable for a long time as lead system-integrator. Investments needed were generally heavy in backdrop of uncertain demand. Thus, a level playing field means policies and procedures ensuring unshackling the OFs and DPSUs while extending adequate and tailored support (including targeted government funding in key areas) to each class of private sector industry namely small, medium, large and integrated big companies. The industry as a whole has to be made to function synergistically as national asset by means of tailoring the policy in a dynamic manner.

Military Demands Are Different

Adequate demand is prerequisite for private enterprise to sustain. Unlike civilian counterparts, the level of specialisation and customisation expected from military hardware is much higher, while the life cycles are rather high (often four to six decades) and numbers are too little. In absence of severely restricted export, the buyer has total monopoly. A production figure of one lakh per year may be rather small for a company manufacturing motor cars, the number of battle tanks needed to be manufactured in a year may be just a hundred or so. Economics of running an enterprise for design, development and manufacture of military hardware cannot be the same. The State has to make the business economically viable through appropriate policies.

Policies and procedures encouraging new start-ups in Defence sector while strengthening existing ones (both, public and private sector) need to replace outdated ones. These should be seen as promoting innovation, facilitating not just smooth selection of appropriate vendor (even if not L1; experience has shown that rigid adherence to policy of L1 has time and again proved us penny wise and pound foolish. The entire process of procurement including speedy acceptance of stores after due and well-defined methodologies of inspection as well as prompt settlement of dues need



Procedures must also incorporate tolerance to failures

to be devised and established with the ultimate aim of enhancing indigenous capabilities. Procedures must also incorporate tolerance to failures (for innovation to flourish and lead to deliverable product, failures have to be accepted as integral aspect and made affordable). The basic decision to go for indigenous source or imports depends much upon the QRs (specifications) defined by the user. Indeed the user is best qualified to plan its strategies, cater to meet the perceived eventualities and thus to define the specifications.

However, it is considered prudent to have fair evaluation of each need *vis-a-vis* available alternatives as well as short and long-term implications of the decision. Easier said than done.

Two-tiered Committee

The dynamics of Defence sector from 'formulation of medium and long-term strategies' to 'development of required technologies and military systems' to 'evolution of strategies based on newer technologies and innovations' forming a complex cycle and interdependencies requires all stakeholders to come together and make the best out of each other's strengths with national interest taking precedence over anything else. To meet this end, an empowered two tiered body headed by the Prime Minister at the apex level and *Raksha Mantri* at the executive level, with participation of all stakeholders (such as NITI Aayog, Ministries of Defence, Home, Finance and Industry including the three armed forces, the paramilitary forces, departments of 'Defence R&D' and 'Defence Production', 'private sector industry', 'think tanks' and academia) is need of the hour. Yes, we do have rare combination of all the ingredients to not only make the country self-reliant but emerge as a hub of emerging Defence technologies and a key player in the world markets; with right mix of policies, procedures and priorities promoting business and indigenous strengths, the future is bright.

The World Bank meanwhile has released the "Ease of Doing Business 2016" as the **DSA** issue is going to print. The overall ranking of India has improved significantly to 130 from 142 (based on year concluding in June 2014) indicating effectiveness of the steps being taken by the Government of India. A good achievement for a country having potential to be on top; obviously, no room for being complacent as much more needs to be done. **DSA**

EASE OF DOING BUSINESS IN INDIA

THE DEFENCE ANGLE

India is one of the fastest growing major economies today at 7 per cent plus and defence manufacturing will be a key element of the Indian growth story. The focus will have to be enhanced to give a positive impetus to the business environment and improve the ease of doing business in India.

Ever since the Narendra Modi led NDA government assumed office in May 2014, there has been enthusiasm among various stakeholders about the possibilities and opportunities in key economic sectors. Partly these were due to the lacklustre second term of the UPA government plagued by indecision on several economic avenues and significantly due to the hope and confidence centred on the promises made by Modi while campaigning. The captains of Indian industries hoped for bold changes to the policy initiatives for improving the environment for doing business in India. This was also echoed by many foreign companies looking for a share in the large Indian market. Highlighting ease of doing business in India, the President of India during his customary address to the parliament in June 2014 as the new *Lok Sabha* sat in session for the first time, mentioned that the new government aimed to usher in a policy environment which was predictable, transparent and fair.

Benign Response

While the expectations were quite high and the new government started work in right earnest, there is still the need for a more business-friendly environment and a faster pace of reforms and structural changes. Recently the World Bank ranked India 142 out of 189 countries in terms of ease of doing business. Although this was a climb up from a much lower position, there remains much to be done. Some of the steps that have been taken are welcome and the Ease of Doing Business document released by the Department of Industrial Policy and Promotion (DIPP) of the Central government in August 2015 comprehensively addresses many of the prick points that the Indian industry leaders put before the government as also conveyed to the Prime Minister by the international community during many of his visits overseas.

One of the major steps was the announcement of the single window portal www.ebiz.gov.in for obtaining clearance for Industrial License (DIPP), Industrial Entrepreneur Memorandum (IEM), Employer registration with EPFO and ESIC, Company Name availability, allotment of Director Identification Number (DIN), Certificate of Incorporation, PAN, advance foreign remittance (RBI), Tax Deduction Account Number (TAN), issue of Explosive License (PESO) and Importer-Exporter code IEC-DGFT. All these clearances not only took up time but also were mired in systemic corruption. The increase of the validity of industrial licenses to 3 years which is likely to be increased to 7 years and even up to 15 years is a good move. Likewise the Ministry of Home Affairs (MHA) will grant security clearances within 12 weeks of application although cases involving explosives and FIPB cases could still take additional time. The number of documents required for export-import has been simplified and reduced to three by the Director General of Foreign Trade (DGFT). Even the State governments have been sensitised and best practices have been identified and disseminated to all the States to improve their support in terms of faster grant of clearances and ensuring compliance. Investor Facilitation Cell was also created under 'Invest India' to help





investors wade past various steps smoothly. The process of applying online for environment and forest clearances has also been initiated by the Environment and Forest Ministry as a departure from the current cumbersome process.

Licenses Abolished

While the above were major steps taken in general, many initiatives were also taken for the Defence and strategic sector that almost missed the special focus it required on a continual basis. Some clear steps were taken right from the beginning with the current Finance Minister Arun Jaitley who also doubled as the Defence Minister and these were put to pace by the current Defence Minister Manohar Parrikar, who has been in the office for almost one year. One of the first steps was the easing of the licensing requirements for defence products in June last year when the DIPP, with the recommendations of the Ministry of Defence (MoD) via a press note, simplified the licensing regime for Defence equipment manufacturing. Only four categories of Defence equipment were defined that require compulsory production licenses and all other items including those for dual use were cleared and require no licenses. Till date 310 industrial licenses have been issued and many of them have been in the last two months. Then came the announcement of the increase of the foreign direct investment (FDI) in Defence from the prevalent 26 per cent to 49 per cent in all areas in the budget speech in July 2014. The requirement of single largest Indian ownership of 51 per cent of the equity has also been done away with which has been a long pending demand of the Indian industry. Right and supportive policies for the small and medium sectors have also been initiated so that the various tiers and their issues are addressed favourably. Ease of participation by the private sector in defence opportunities was attempted and a realistic harmonisation with public sector undertakings and their programmes was reinitiated. Many programmes, stagnating for years for various reasons were given the green light for procurement.


Offset Factor

However much still needs to be done for the sector to achieve the target of 70 per cent indigenisation by the year 2027. The revision of the Defence Procurement Procedures (DPP) needs to be tuned with the expectations and much of the ills around the offset provisions have to be addressed to make it practical to be implementable. The proposed changes to the DPP as recommended by the Dhirendra Singh Committee recently should focus on making Defence production and procurement simplified and complementary in nature so that the available capital, technical knowhow and resources are optimally utilised. Likewise the VK Atrre Committee

now seized of the issue of having specific participation and expertise in specialised projects should focus on how to ensure actual creation and absorption of technology and related capacity building. It is very crucial for these committees to see how it can be made easier for companies to invest and have returns on their investments. Blocking capital for years with the sense of unpredictability has been a cause of concern over all these years and that's why despite the intent for the last 30 years to reduce foreign equipment acquisitions, no actual results have been achieved on the ground and the Indian military industrial complex of size has not been established.

Cut Gestation Period

As the government is actively pursuing foreign entities also to look at India as part of the 'Make in India' initiative, faster implementation of recommendations made by various committees constituted by Government of India have to be undertaken to give the right confidence. The PM during his recent visit to the United States of America urged investors and funds to invest in India and promoted India as global destination for setting up manufacturing bases besides the existing engineering and service sector advantage. Likewise the leadership of global US defence majors have urged the government for the simplification of the bidding process for contracts and ease rules for implementation of offsets. Clearly as a confidence building measure, a zero tolerance for systemic delays and eliminating the long gestation period between bidding and signing of contracts has to be exhibited. Also a consistent and predictable taxation regime has to be visible.

Defence manufacturing as one of the 25 core focus areas of 'Make in India' programme itself is a good move so that the highest level attention is paid to the sector. India is one of the fastest growing major economies today at 7 per cent plus and defence manufacturing will be a key element of the Indian growth story. In the last 16 months of this government in office, many efforts have been made to lift up the investor confidence. The focus will have to be enhanced to give a positive impetus to the business environment and improve the ease of doing business in India both for domestic companies and also the foreign investors. Much of that will depend on the right implementation strategy. 



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It is very crucial to see how it can be made easier for companies to invest and have returns on their investments

DIVINE EAGLE

Hunting Low RCS Targets

Increasing use of drones would give the forces better situational awareness in future conflicts. The high altitude long endurance (HALE) UAVs would particularly enhance China's near sea surveillance capabilities and would be of tremendous advantage in anti-shipping operations.

Surveillance is a vital part of China's counter intervention strategy. China has been enhancing its surveillance capability by deploying space assets, maritime surveillance assets, over-the-horizon radars (OTH) and airborne platforms. Over the years, PLA has realised the value of UAV as potential surveillance and reconnaissance platform and has started to induct a wide variety of UAVs to improve its ISR capability. Chinese State aviation industries have developed a wide variety of unmanned aerial vehicles of different classes that could perform specific roles. One specific problem for the PLA is to detect and engage low radar cross section aircraft. China's defence industries are trying hard to defeat stealth. The *Shen Diao* (Divine Eagle) UAV is believed to be built for such a role.

Photographs of a new military UAV have emerged online called 'Divine Eagle'. The craft has unique twin fuselage airframe and appears to be a long endurance UAV.^[1] For the past few years China has invested heavily on UAVs, both military and civilian. There are already a wide variety of UAVs that are operational with the Chinese armed forces. This UAV is a unique design supposedly for specific applications. The Divine Eagle is speculated to be for enhancing C4ISR, anti-stealth applications and possibly for strike role as well.

The 'Diving Eagle' UAV has twin fuselage, but appears to be modelled on the US *Global Hawk* (for the fuselage). The picture shows that the craft is powered by a single turbofan engine and the long span of its wing indicates that it is a High Altitude Long Endurance (HALE) UAV.^[2] The long wings are located at the rear and a smaller wing is located in the front bridging the two fuselages. The UAV incorporates stealth features like inward canted fins, stealth shaping and possible stealth coatings.

Accent On UAVs

China is building a wide variety of military UAVs from land based to ship based UAVs. At present, China is developing three models – *Yilong*, *Xianglong* and *Lijian*.^[3] It is expected that PLA will have about 42,000 military UAVs in service by 2023. The US department of Defence estimates that China will spend around 10 billion dollars for advanced UAV development including the development of armed drones.

The UAV is reportedly built by the 601 Institute of the Shenyang Aircraft Corporation (SAC). It is believed to have been built with some Russian help. The Russian Sukhoi design bureau had designed a similar UAV in the late 1990s called the S-62. China is reported to have shown great interest in the Russian project.^[4] In addition, most of China's UAV

1. <http://www.milx.com/news/junshiyuanchuang/20135.html>

2. http://news.ifeng.com/a/20150724/44239119_0.shtml#p=1

3. <http://www.chinaha.net/html/201507/20150771023.php>

4. <http://www.janes.com/article/51759/images-emerge-of-new-chinese-twin-fuselage-hale-uav-concept>



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design is also heavily aided by espionage operation and reverse engineering of foreign systems. Many of China's military systems either resemble Russian or Western systems.

Attributes

It could perform long duration surveillance, reconnaissance, communication and target cueing to other air and ground platform. The other primary role as speculated, will be an anti-stealth role, where the UAV can detect and track enemy stealth planes and cue the target information to other platforms for engagement. China has been for quite some time working on counter stealth platforms. Not much is known about the power plant.

It is possible that, it is specifically built with the counter stealth role in mind. The UAV has been given a twin fuselage which gives extra room for multiple radars and longer wavelength antennas. A drawing of the craft gives a combination of x-band and UHF antennas.^[5]

Each pair of the x-band and UHF antenna is located on the four sides of the vehicle providing 360 degree coverage. It is also speculated that the UAV can have an electro-optical sensor located inside the fuselage as well.^[6] The UHF owing to its low frequency has good low RCS detection capability, while the x-band might pitch in for cued localised target scanning and tracking. The

UHF also gives the craft longer range surveillance ability, in terms of detection.

VHF Antennae Discounted

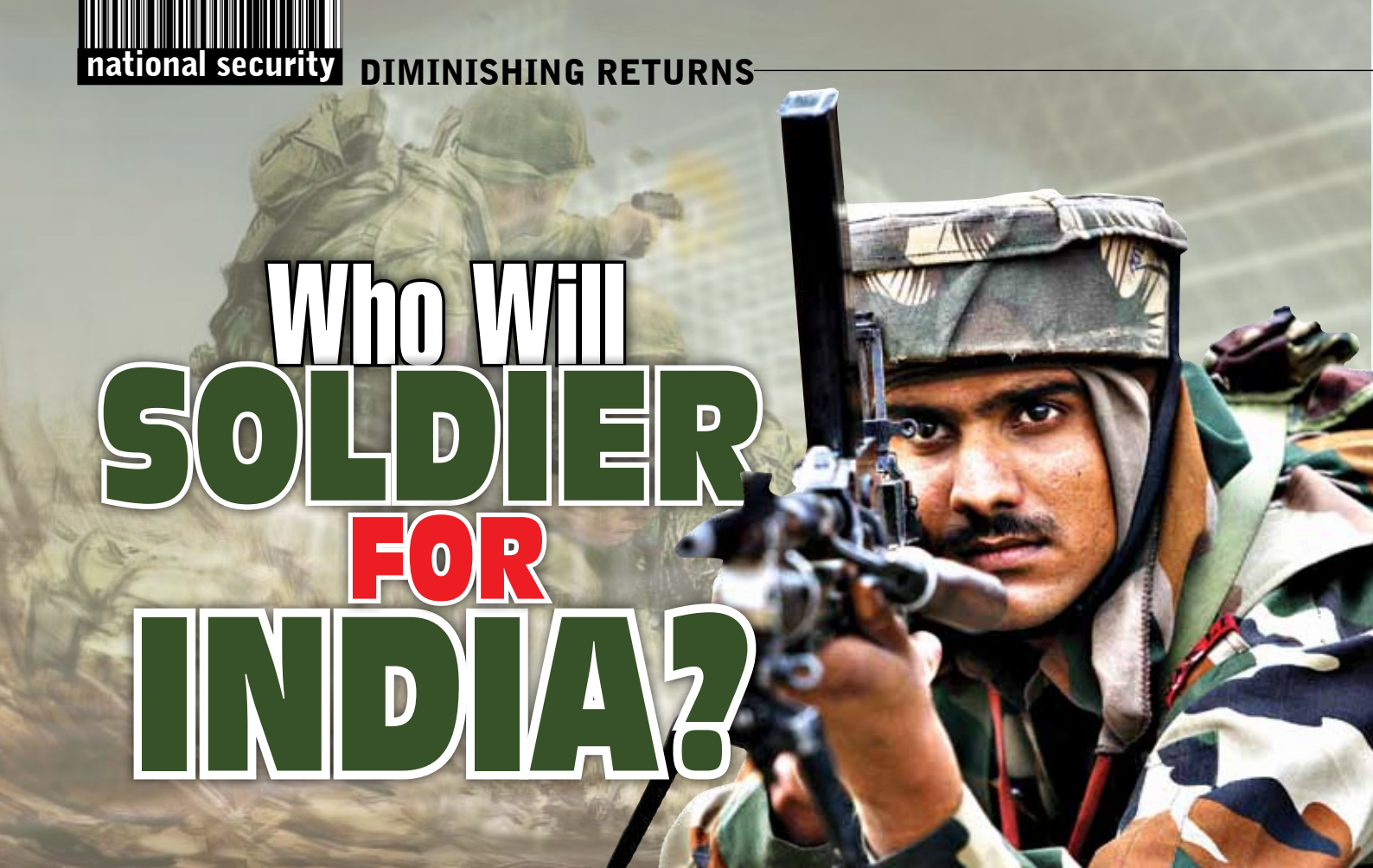
Some Chinese language media claim that the aircraft could also have radars operating in the VHF frequency. This is not feasible as a VHF antenna cannot be accommodated within the UAV. Such an aircraft can also be used for maritime application, particularly for an anti-shipping role. The aircraft can communicate with other platforms via a satellite communication antenna. Apart from providing anti-stealth capability, the aircraft could also provide early warning of other air and ground targets.

Increasing use of drones would give the forces better situational awareness in future conflicts. The high altitude long endurance (HALE) UAVs would particularly enhance China's near sea surveillance capabilities and would be of tremendous advantage in anti-shipping operations. The meter wavelength antennas in the UAV would aid in long range surveillance of maritime areas. With necessary signal processing to overcome the problems in range and angular resolution the UAVs could also provide target cueing to offensive platforms to engage the acquired targets. This aircraft will greatly enhance Chinese armed forces' C4ISR capability along with other medium altitude and tactical drones. **DSA**

This aircraft will greatly enhance Chinese armed forces' C4ISR capability

5. <http://www.janes.com/article/51759/images-emerge-of-new-chinese-twin-fuselage-hale-uav-concept>

6. <http://www.janes.com/article/51759/images-emerge-of-new-chinese-twin-fuselage-hale-uav-concept>



Who Will SOLDIER FOR INDIA?

How this sustained degradation of the military in India came to be accepted by the successive chiefs of the three services needs serious introspection ... Political leadership has done no better and its credibility stands dented. The ongoing hunger strike by veterans at dozens of places, all over the country, has some very serious implications.

The Finance Minister of the country, who was also the Defence Minister for a few months, informs us that terms of service (retirement at age 35-37) for a soldier are well spelt out from the beginning and recruits join knowing it fully well. So stop projecting short service span of defence forces as if it occurs as some kind of sudden unannounced midway layoff from the government! The Finance Minister further informed us that this luxury of such early retirement and pension is not available to Central Police Organisations (CPOs), such as CRPF/BSF/ITBP who need minimum 20 years' service for even Voluntary Retirement Scheme. Some logic indeed! Finance Minister should offer army's terms and conditions of service, even without the travails of military service, to these CPOs and then see the response!

The Defence Minister informs us that since there have been no wars these last four or five decades, people have lost respect for the military. Yet another minister tells us that military men are paid to die

so what is so great about dying in the line of duty! Finally Jains and Chetan Bhagats of the journalistic community too have joined in this tirade against the military. All over militaries in democracies enjoy the highest respect but in India it is fashionable, even for our political class, to ridicule it. Therefore, the question, whose army it is anyway!

So if eightyfive per cent of the military men are sent home at the age of 34-37 years, where is the problem and why compensation for early retirement! The

Supreme Court orders on payment of rank pay are yet to be fully implemented

problem is that the country needs a young military so that it can meet the challenges of the profession of arms. Today there are very few indeed who join military service as a family tradition and fewer

still are those who join for the love of the country. Wards of the politicians and babus do not join in any case. Those who join are the ones who fail to get any government service: even of a peon in a government office. This will, surely impact national security in the long run, because man behind the gun continues to be more important than the gun. Interestingly out of



44 Presidents of United States of America over thirty had served in the military. Churchill served in the army and had taken part in the last cavalry charge in history.

Neglect of national security is not new for us. Philip Mason, from the Indian Civil Service (ICS) in his book, *A Matter of Honour*, dilating on the long history of military defeats of armies of India, lays the blame at the door of politics and the types of governments that had grown up in India. Therefore, the question, are we now blessed with a government, any different?!

Unpleasant Legacy

British left us a world-class military, which proved its mettle in every conflict it took part in. Soon after independence and before the new government had the time to degrade it, the First Kashmir War was upon us. Indian Army successfully snatched the Kashmir Valley and much else territory from the very jaws of invading tribal hordes and the Pak Army. But alas the Indian government under Pandit Nehru, aided and abetted by the babu, took just over a decade to run it to ground and consequently it crumbled before the Chinese in 1962.

Then in 1965 while the military had barely recovered from the Chinese debacle of 1962, when Pakistan tried once more to grab J&K. Indian Army thwarted this attempt and in the process decimated Pakistans offensive potential, even though it had been starved of contemporary weapons and equipment and was terribly short of infantry. The real good performance was put up by the military against Pak Army in East Pakistan. Its 1971 campaign against Pak Army in East Pakistan is worthy to rank amongst the great campaigns in history. The last time India's Army won a victory against foreign army of importance was in 220 BC when Chandragupta Maurya defeated Selucus Nicator – Alexander's general. Therefore India's military had to be rewarded for this great performance.



Degradation

This reward came in the form of further degradation of the military. Earlier, New Pay Code was brought in, which pulled down the pay of defence services officers only. This scheme was not applied to Kings Commissioned Indian Officers (KCIOs) and was the first attempt at, 'divide and rule' and bring in a split in the military. In the First and Second

Pay Commissions MoD alone represented the military's case. The Third Pay Commission in 1973 wanted to hear military's case, direct from it, but the MoD ruled against it, on the grounds of discipline! Unfortunately the top brass of the military accepted this patently absurd stance of the MoD.

This Pay Commission brought down the pensions of defence services from 70 per cent of last pay drawn to 50 per cent and elevated from 30 per cent to 50 per cent in the case of civil servants. But 85 per cent of military men did not get even 50 per cent and instead got only 37 per cent because of shorter span of service.

We live in a competing world and if you are in India, the choices are limited, because jobs are limited and unemployment is rampant. An employer, must assess the employability for the job, a candidate aspires to seek. But given military's terms and conditions of service this luxury is not available to it. This aspect of quality of manpower will seriously impact national security.

Chicanery

Places where successive Pay Commissions tried to improve matters, MoD and Controller of Defence Accounts (CDA) stepped in to negate these. The 4th CPC, as a sort of consolation for OROP gave rank pay upto the rank of Brigadiers. CDA conveniently deducted this amount from the basic pay, which in turn impacted whole range of allowances as well. Nearly three decades later this case is yet to be fully resolved. Supreme Court orders on payment of rank pay are yet to be fully implemented. Those who played this mischief on the defence services were never exposed and held accountable.

The 6th CPC ruled that pension should be fixed at 50 per cent of, 'the minimum of the rank in the pay band corresponding'.

The civil bureaucracy mischievously placed pension of defence officers at, 'minimum of the pay band corresponding'. Four different ranks ie Lt Colonel, Colonel, Brigadier and Major General were in the same band (band-4) and the MoD placed all of them at the bottom of the pay band for the purpose of fixing pension. Thus a Brigadier (with rank pay as admissible to him) got more pension than a Maj Gen. This too has not been fully resolved some ten years later. In addition over a dozen anomalies created by the 6th CPC are still to be resolved.



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PVSM, AVSM
(Retd)

The writer was commissioned in 1955 and joined armoured corps. He has been Brigade Major of an Independent armoured brigade, General Staff Officer-1 of an armoured division and commanded School of Armoured Warfare. Has been senior instructor at the War College. Commanded a mountain brigade and an armoured brigade. Was Deputy Director Operational Logistics and Director General Weapon and Equipment at Army Headquarters. Raised first Reorganised Army Plains Infantry Division (RAPID) and fielded it in Exercise Brass Tacks as defending commander. Commanded a corps in J&K and retired as Deputy Chief of Army Staff in August 1992.



Inadequate Compensations

Disabled civil employees of the government are retained till they reach the age of superannuation and given normal pension. Whereas for military personnel, for whom the chances of suffering disability are much higher due to professional hazards are sent out of service and often denied adequate disability pension.

These disabled servicemen have been fighting their cases with the government for years and the Supreme Court was constrained to observe that government is treating army personnel like beggars.

This early retirement, mounting family commitments and resultant financial worries have brought the life expectancy of soldier down to 61-63 years while the life expectancy of his counterpart in the civil is 71-72 years and those from the railways it is 73 years. This is so, though at the time of retirement a soldier is physically fit in every respect.

While the pay and pension of military officers was being depressed in every possible way, the bureaucracy in the 6th CPC gifted to itself and all India Group A services (over four dozen of them) 'Non-functional upgrade' (NFU) but made it a point to exclude military officers from this largesse. This grant of NFU has given these civil services one up on OROP. Now under NFU every one from those over four dozen civil services will retire with 32 years service, in the minimum appointment equivalent to an additional secretary to the government of India (equal to 3 star General) while less than 0.03 per cent vacancies of three star General exist in the army.

Soldier retiring at age 34-37 and drawing 37 per cent of last pay drawn as pension gets around ₹ 40 lakh less than an equivalent civilian employee when both reach the age of 60 years, age at which the latter retires. This is so due to longer span of service and periodic increase in pay, allowances etc. This figure of ₹ 40 lakh would substantially increase if we take into account what a civil employee would get from the next two to three Pay Commissions. Further the life expectancy of a sepoy in the Central Police Organisations (CPOs) is approximately ten years more than a soldier, his lifetime emoluments would work out to much more than the figure mentioned earlier.

Unnecessary Comparison

Still a group of former DGs of Central Police Organisations (CPOs) met the Home Minister to caution him that grant of OROP to defence services will demoralise their men. Of course the Home Minister did not ask them, if these policemen are willing to opt for the same terms and conditions of service as of a soldier, even without all the travails of life in the military! He could have asked these DGs one more question as to how many IPS officers who command these CPOs have died fighting terrorists in J&K and Maoists in the Northeast!

It is not only in pay and allowances that military has been left far behind by almost every other civil employee, but his pride (*Izzat*) and respect has been seriously dented, in every possible way. Comparison in pension with other armies in democratic countries would highlight how badly the Indian soldier stands discriminated. In the United States, army pension for defence personnel is 50 to 75 per cent of last pay drawn while that of a civil government employee it is 33.75. In Japan it is 70 per cent giving him 12 to 29 per cent edge over civil servants.

In France it is 75 per cent with 15 per cent edge over civil servants and in Germany it 75 per cent of last pay drawn giving an edge of 15 per cent over civil servants.

How this sustained degradation of the military in India came to be

accepted by the successive chiefs of the three services needs serious introspection. It says much about the types of leadership the defence services have thrown up and how little they have cared for those under their command. As more and more officers are getting aware of these developments, there is increasing criticism of top brass by them. To this if we add the efforts by some in the government, to bring about a divide between officers and troops on the OROP issue, we may soon have a catastrophic situation in the making.

Political leadership has done no better and its credibility stands dented. The ongoing hunger strike by veterans at dozens of places, all over the country, has some very serious implications. This manner of handling of defence forces issues does not augur well for the country and we will end up paying a very heavy price for this. Finally given this sustained degradation of defence services, the question we need to ask is, 'Who will soldier for India'. **DSA**

This manner of handling of defence forces issues does not augur well for the country



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