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EMERGING INDIAN TECHNOLOGIES IN DEFENCE AND SECURITY

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**DEFENCE
BUDGET**



THE FIRST CHOICE IN THE DOMAINS OF
DEFENCE, SECURITY AND WORLD AFFAIRS
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EXCELLENCE**





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.



The power of a King lies in his mighty arms...

Security of the citizens at peace time 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 IS AS MUCH YOURS, AS IT IS OURS!



On the eve of annual budget presentation, the Government of India announced the acquisition of 83 Tejas Light Combat Aircraft from Hindustan Aeronautics Limited, the public sector giant. In the race for an indigenous defence industry, this was a significant step forward —both for the quantum of monies involved as well as the technology concerned. After all, India had never ordered 83 modern combat aircraft in one stroke, a single order. The thousands of crores that are to be spent during this order will go to HAL, as well as multitudes of small and medium industries that act as ancillaries.

There are, however, two aspects of this decision that need to be analysed carefully so as to get a better picture of defence equipment, as well as the procurement procedures that exist in India. The first, a vital reality check that needs to be understood is that Tejas, in the currently ordered Mark I model, is about fifty percent indigenous. This is calculated from the overall

cost of the plane and then divided between the domestic and imported components. So, it means many items continue to be imported, prime amongst them the GE-404 engine, as the indigenous Kaveri version hasn't fired.

This is the reality that needs to be put into proper perspective before declaring a miracle that isn't one. The other aspect is that the Government of India's initial decision to buy 83 aircraft was made three years ago, announced, and obviously kept in abeyance since monies were not committed. Hopefully, after this announcement, the requisite monies will be committed and the production and procurement process gets underway without a hitch. Manufacturing combat aircraft is a very complex process and there are more months in the year than likely production numbers. India would be lucky if it ever reached two figures in terms of production rates.

The onus of ensuring adequate production figures is, therefore, on the budgetary commitments made by the Government of India. The greater the figures assured the

likelihood of ensured production is that much more. There is no substitute, or short cut, to this route and this budget is a good enough starting point to ensure that such commitments will be made. For too long now, India's defence budget has plateaued, or even fallen, in terms of percentage of GDP. That is not the way to encourage indigenisation, especially in an industry that has been restricted.

The monies that have been spent in recent years have largely gone for big ticket items from foreign vendors, or governments. Such fancy purchases, while making great headlines, don't really change the prevailing scenario. While the arrival of the first batch of Rafale aircraft was heralded as a game changer in terms of China, the reality is very different. And, that reality can only be improved in India's favour if its domestic industry gets involved in the entire cycle of defence, research, development, and production. The scales involved, challenges and requirements, means all have to be involved, public and private sectors. The government assurances need to be more consistent in that direction.

Manvendra Singh



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INDIGENOUS DEFENCE TECHNOLOGIES



In the wars of 1962, 1965 and even 1971, most of the technologies used by the Indian Armed Forces were not indigenous. Our troops were in the transformation stage and thus, they were dependent almost totally on foreign technologies and this was a lesson for us. In 1958, the government of the day took baby steps towards creation of a military-industrial complex by setting up the Defence Research and Development Organisation for the exclusive design, development and production of military hardware. The grand strategy was to acquire technology through licenced production of foreign weaponry to first become self-reliant and then move on to large-scale self-sufficiency in weapon platforms that give a nation political heft like aircraft, ships, tanks and missiles. Simultaneously, it worked on the weaponisation of the atom in the Bhabha Atomic Research Centre and related laboratories.

However, DRDO projects suffered overly long delays and cost escalations that resulted in continuous dependence for military hardware on foreign sources.

But with the change of guard at the Centre in 2014, the government was more serious in developing the indigenous defence and security industry and announced the "Make in India" movement which actually made the foreign manufacturers interested in establishing the industries in India directly or with Joint Ventures. This was just the beginning for the Indian defence apparatus to get equipped with the indigenous products and technologies. This one movement actually attracted lot of foreign interest in the field of defence production. Certain old norms and regulations were eased to give relief to the investors in establishing the defence production units in India.

Now, we are in 2021, which is a time to actually evaluate if we could really achieve the targets of developing the indigenous defence industry for our forces or not. I would like to say here emphatically, Yes! With the change in the policies and regulations by the central government, we are close to a situation where we will be seeing many Indian companies coming forward to start their productions with all the available raw material and the technologies being developed by the Indian technocrats and the engineering companies. I am sure that in the near future, more and more technologies will be developed and produced for the requirements of our defence forces which will minimise dependence on the foreign products and technologies, and it will be a matter of pride for each soldier when he/she will use the indigenous products and technologies to safeguard the nation from any attack.

Every year in the month of February, the Central Budget is tabled in the Parliament and when you will get this edition, the Union Government Budget would have been presented and we will come to know how much budgetary provisions have been made by the government for the defence and its preparedness. I am sure that this year the defence budget will be far more attractive as compared to the previous ones.

This edition is focused on the emerging Indian technologies for the defence and security apparatus and on the defence budget. Our esteemed contributors have shared their candid views on the topics for your reading and reference purpose. I am sure that you will find these articles of great importance for your reference library.

Jai Hind

Pawan Agrawal
Chief Executive Officer



**MODERN MILITARY :
NEEDS WELL-FUNDED R&D**

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