

Investment in R&D must go up to two per cent of GDP: DRDO Chief

Dr Saraswat was speaking on the sidelines of the second edition of India Conference on 'Innovation, Intellectual Property and Competition' held at the Indian School of Business in Hyderabad

Hyderabad: Ahead of the presentation of Union Budget in the Parliament on Friday, NITI Aayog member and former DRDO chief Dr VK Saraswat said on Thursday that the government should increase its spending on Research and Development (R&D) from the current 0.8 per cent to at least two per cent of the total GDP. "This would aid the country's economic growth," he stated.

"As a member of Science and Technology in the NITI Aayog, I have always been saying that India's investment in R&D has to go up. Only then can we see a substantial increase in our Intellectual Property Rights, innovation and competition -- all important factors for economic growth," he stated. Saraswat added that there are some countries spending more than two per cent of their GDP, even up to four per cent, on research and development.

Dr Saraswat was speaking on the sidelines of the second edition of India Conference on 'Innovation, Intellectual Property and Competition' held at the Indian School of Business in Hyderabad. He also pointed out that the Indian micro, small and medium enterprises are lagging in research and development, thus preventing them from innovation that can be translated into economic gains. "MSMEs, or even industries in general, do not have a strong R&D base in India. That is why the number of innovations that come from academic institutions or national laboratories are far more than the MSMEs or industries. The former spaces have much better ecosystem," he stated.

Dr Saraswat informed that the NITI Aayog has formulated draft policies on Artificial Intelligence, called 'AI Mission', and that they are under circulation among various departments for their views. Speaking on the essentiality of converting innovation into economic success, Dr Saraswat said: "The definition of innovation today is very loose. Many people think if you do something - some discovery - you could call it an invention. But what matters is how much earning you have made out of it, how much value you have added to the market."

<http://www.newindianexpress.com/cities/hyderabad/2019/jul/05/investment-in-rd-must-go-up-to-two-per-cent-of-gdp-drdo-chief-1999622.html>

Defence budget: Skewed ratio of allocations hurts India's war preparedness

India's defence budget of Rs 318,931.22 crore earmarked Rs 210,682.42 for revenue allocation (pay and allowances of manpower) and Rs 108,248.80 crore for capital (modernisation and acquisitions) allocation

By Pravin Sawhney

India's defence budget of Rs 318,931.22 crore (excluding defence pensions) earmarked Rs 210,682.42 for revenue allocation (pay and allowances of manpower) and Rs 108,248.80 crore for capital (modernisation and acquisitions) allocation.

The revenue allocation is double of capital allocation.

This skewed ratio of revenue to capital does not help war preparedness.

Unfortunately, defence minister Rajnath Singh cannot do much. He cannot reduce 82% of the army's total allocations (which is 55% of the total defence budget and highest of the three services) meant for pay and allowances of a 13 lakh-strong force. This is because the government has approved Army Chief General Bipin Rawat's hybrid warfare strategy (focussed on counter-terror operations and land warfare) with humongous manpower commitment.

Of '80s vintage, this war-fighting strategy will not win the next war with either Pakistan or China. China is three steps ahead in technology and doctrinal thinking, and Pakistan, banking on People's Liberation Army's (PLA) assistance – because of their common commitment to China Pakistan Economic Corridor – could well spring operational surprises in a war with India.

The PLA, focussed on information warfare, has made impressive progress on artificial intelligence-based warfare, and is working on upgrading that to quantum sciences supported warfare. So, the outdated hybrid strategy will not win war, but maintain the chimera of war preparedness by regular terrorists' killings – never mind the price paid through the lives of our own soldiers.

Moreover, Rajnath Singh has no control over capital allocations. By creating the Defence Procurement Committee (DPC) on April 18, 2018 under National Security Advisor (NSA) Ajit Doval, the defence ministry's principle function of procurements and planning was brought under his wings.

Since this suits the government, the capital allocations – to be decided by the NSA – would mostly be spent on two things – neither of which would help in war preparedness.

One, emergency purchases to make up the tactical level war deficiencies like stand-off weapons and specialised ammunition for the army and air force, which can be used in case of politically expedient cross-border military strike. This is the consequence of the 2019 Balakot airstrike and the 2016 surgical strikes, both of which created a positive perception within the country and helped the government win the 2019 general elections.

According to some reports, orders for these have already been placed with Israel and Russia. More of these would follow, perhaps now for the navy's tactical adventure (against Pakistan), should it become necessary to showcase commitment to national security.

Two, for buying systems like the US National/Norwegian Advanced Surface to Air Missile System-II (NASAM-II) which, since India has signed for the S-400, becomes an operationally redundant purchase. NASAM-II is clearly meant to support India's new multi-aligned foreign policy by keeping the US and Russia happy with arms purchases.

This is perhaps the other reason why the DPC was created — to ensure few questions are asked on purchases which do not enhance war preparedness. It would have been better if the over a billion dollars to be spent on NASAM-II was instead utilised to make up air force's combat aircraft deficiencies.

Ironically, most analysts who seek war-fighting reforms to balance diminishing capital allocations miss two points: One, creation of the DPC under the NSA is the biggest military reform as it brings operational acquisitions to the prime minister's direct attention. And two, there are numerous contractual liabilities for acquisitions calling for the highest attention.

The case in point in the \$5.4 billion S-400 air defence missile system's contract which commits Russia to start delivery in 2022. For this to happen, the production should begin, which in turn requires India to pay the agreed first financial tranche.

This has not happened yet. Who better than the DPC to get the wheels rolling once defence allocations are available?

Similarly, there are other contractual obligations like on the Rafale aircraft which need to be paid on time.

Two other issues need to be highlighted. The Defence Research and Development Organisation's (DRDO) capital allocation of Rs 10,484.43 crore is mere 6% of the total defence budget. This is grossly inadequate, especially when the need should be for financial commitment to the Technology Perspective and Capability Roadmap (TPCR) after deliberations between the scientists and the defence services. Considering that no nation gives away its cutting-edge technology, India should stop scouting for it.

There is instead a case for dividing the DRDO into two: Let research remain with the DRDO's new avatar, while the development should be given to both public and private sector defence companies. The new DRDO should become something like the US' Defence Advanced Research Projects Agency (DARPA) — which looks into new technologies — with an enhanced funding of 10 per cent of the defence budget.

Second is the long pending defence services' demand of roll-over defence capital budget. Given the excruciatingly long procurement procedure, funds meant for procurements if not fully utilised in a year, lapse and go to the Consolidated Fund of India.

The demand that they be available with the defence ministry for further use is infructuous with the DPC in place. The DPC has enough authority for sizeable supplementary grants. If only it puts together a real roadmap for war preparedness, which is its other job.

<https://thewire.in/security/india-defence-budget-allocation-capital-revenue>