

India's Defence Budget Dynamics

Budget Outlay and the Question of Imbalance

Rohit* and L. Ram**

The evolution of cutting-edge technologies such as Artificial Intelligence (AI), the Internet of Things (IoT), Unmanned Aerial Vehicles (UAVs) and standoff weapons have presented new challenges to defence and security systems worldwide. The evolving nature of technological and information warfare has expanded the horizon of modern-day conflict and compelled all nations to re-evaluate and rethink their Research and Development (R&D), defence policies, expenditure and technological capabilities. In this endeavour, the process of capacity and capability enhancement of the Indian Armed Forces is one major obstacle that India encounters, considering its large number of troops. The salaries, pensions, maintenance and other expenses consume nearly 70 per cent of India's defence budget, leaving insufficient funds for other sectors that require more investment. In this study, we have attempted to address the imbalance of India's defence expenditure with respect to modern-day technological advancement and threat perceptions. The study argues that the synergy between manpower and technology, which is vital for India's national security, can be attained by understanding the noteworthiness of defence expenditure, the large size of troops and the capital outlay incurred on them.

Keywords: *Imbalance, Defence Budget, Capital Expenditure, Indian Armed Forces*

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INTRODUCTION

Over the last few decades, especially after the Cold War era, the definition of national security has changed from merely ensuring the territorial integrity and sovereignty of a state to facing new challenges in areas such as data security, climate security and human security. The evolving technologies, such as Artificial Intelligence (AI), Machine Learning (ML), stand-off weapons and Unmanned Aerial Vehicles (UAVs), have transformed the dimensions of modern warfare, entangling countries in a modern-day security dilemma. The emergence of cutting-edge technologies¹ in the defence sector has the ability to replace manpower to some extent, but the utility and efficacy of these critical technologies will depend upon how we manage them. In this endeavour, an equitable distribution of financial resources will continue to remain at the centre of debate. However, there is no proper definition of “balance” mentioned in India’s defence budget. In taking into consideration hostile neighbours, porous borders, lethal weapons, and information and technological warfare, it can be assumed that an adequate equilibrium between revenue and capital expenditure of India’s defence budget can be considered as “balance” in India’s defence expenditure. Also, according to the recommendations of the 2021 Standing Committee on Defence, the ideal equilibrium between revenue and capital expenditure should be 60:40² which essentially implies that this proportion in particular (in the context of India’s military expenditure) can also be termed as “balance” in India’s defence budget. On the contrary, the “imbalance” is excess spending on the revenue side, which will eventually compromise India’s national security. In other words, when the disparity between the capital outlay (low in scale) and revenue investments (high) exists, then it can be termed as an “imbalance” in India’s defence budget. This situation can hamper India’s war preparedness as well as its combat operations against modern-day security threats. In the current scenario, a major shift in defence reconstruction and development has been observed worldwide. For example, a country like India faces challenges in distinguishing between the demands of future warfare and the current state of its modernisation efforts.³

India’s Ministry of Defence (MoD) primarily deals with all defence- and security-related matters and assigns them for implementation or execution to the relevant organisation (i.e., Service Headquarters, Inter-Services Organisation, Defence Production Mechanisms, and Research and Development organisations). MoD deals with three integral components in the form of Defence Services Estimates (DSE), Defence Pensions and

MoD (Civil).⁴ The allocations under MoD (Civil) encompass the expenses of the MoD Secretariat and other establishments such as the Border Roads Organisation, Coast Guard, Defence Estimates Organisation, Jammu and Kashmir Light Infantry and Armed Forces Tribunal. Also, under a wider definition, the defence budget includes the MoD's budget plus four border-guarding forces [Border Security Force (BSF), Indo-Tibetan Border Police (ITBP), Assam Rifles (AR) and Sashastra Seema Bal (SSB)]. MoD's defence budget has been categorised under the ambit of Revenue Expenditure and Capital Expenditure, as shown in Table 1. In Revenue Expenditure, most of the allocated budget is consumed on pay and allowances (P&A), maintenance and pensions, whereas in Capital Expenditure, a major part of the allocated funds is spent on asset creation, investing in machinery and equipment, purchasing new weapons, technologies, etc.

According to the budget estimate for 2024–2025, nearly 71 per cent of India's total defence budget has been allocated for pension, salaries and maintenance of the Indian Armed Forces on the revenue side, with the rest of the expenditure allocated for the capital side.⁵ Moreover, the ratio of Revenue Expenditure and Capital Expenditure is 71:29, which is relatively low compared to the 60:40 ratio proposed and recommended by the 2021 Standing Committee on Defence.

Table 1 Shares of Revenue and Capital in MoD Budget (2024–2025)

	Revenue Expenditure (in Crores)	Capital Expenditure (in Crores)	Total (in Crores)
MoD (Civil)	15,722.33	10,240.85	25,963.18
Pension	1,41,205	0.0	1,41,205
Defence services	2,82,772.67	1,72,000	4,54,772.67
Total	4,39,700	1,82,240.85	6,21,940.85
% Share	71%	29%	100%

Source: Union Budget 2024–2025.

India's defence budget is allocated to the tri-services of the Indian Armed Forces, which are directly responsible for protecting the country from external threats and disturbances. Half of this budget is directly allocated to Indian Army (IA), which plays a prominent role in the battlefield ground and consumes a major portion of the defence budget. Therefore, at a time

when India is significantly preparing for potential two-front wars with its hostile neighbours, it needs to focus on the significance of capital outlay in defence expenditure. As stated by Indian Prime Minister Narendra Modi at the Annual Combined Commanders' Conference,⁶ "...simultaneously fulfilling the ambitions of increasing strength and modernisation of IA is not feasible, especially when there is a strategic shift in the demand and doctrine of modern warfare".

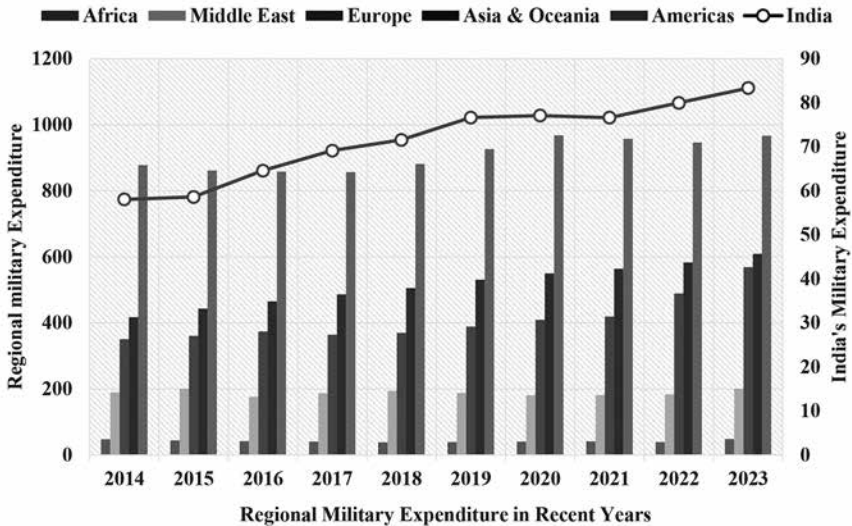
Over the decades, India's Gross Domestic Product (GDP) has considerably increased, from US\$ 274 billion in 1991 to US\$ 3,389 billion in 2022.⁷ However, the overall percentage of GDP spent on the defence budget remains nearly similar or stagnant and lies in the range of 2–3 per cent, especially after the 1990s.⁸ Moreover, according to statistics from the Defence Budget 2024–2025, India's defence budget remains below 2 per cent of the GDP,⁹ which is lower than that recommended by the Standing Committee on Defence. Moreover, critics also argue that, due to the ambiguity associated with the proper definition of the defence budget, it has become a quite complex process to determine the magic number that would define the defence to GDP ratio.¹⁰ As a developing country, India has significant progress to achieve in human resource areas like education, health and improving the living standards of people. Therefore, it cannot categorically transfer the major portion of its budget towards the defence sector only, as observed in countries like Pakistan and North Korea.¹¹ Investment in human capital has the potential to fulfil the aspirations of New India that will not only boost the development process but also promote R&D in the defence sector. Therefore, India needs to navigate its defence and development policy while maintaining an adequate balance among the factors mentioned earlier.

This article primarily raises the question of how the transfer of funds towards salaries and pensions has reduced the Capital Expenditure of the Indian Armed Forces, more specifically the IA, and the possible repercussions of this imbalance on India's defence modernisation process.¹² The fundamental objective of the study is to address the imbalance in India's defence expenditure and determine how it compromises India's modernisation path towards future war preparedness to combat various threats. Therefore, the article examines the changing dynamics of India's defence budget and how it resonates with India's national security strategy. For this study, data has been compiled from both primary as well as secondary sources, such as various government websites, research think-tanks, journals and official reports, which provide a descriptive and analytical perspective.

INDIA'S DEFENCE SPENDING: CONTEMPORARY TRENDS

To counter the security dilemma and protect their national interests, countries worldwide are now significantly focusing on their security issues. The increasing threat perception and emerging modern warfare technology have led countries to focus on their defence policies, expenditure and R&D. Figure 1 illustrates the global military expenditure dynamics, showing how the evolving geopolitical landscapes has stimulated military expenditure and armaments race.¹³ The figure itself interprets how, on one hand, the entire world is talking about the insufficiency of financial resources for climate change, food security, energy, etc., whereas on the other hand, the continuous allocation of funds for armaments remained constant. SIPRI data also shows that India remains one of the world's largest military spenders and arms-importing countries. Figure 1 also depicts the increasing trends of India's military expenditure amid the rising tensions with its neighbours, namely China and Pakistan. The prime concerns behind increasing defence

Figure 1 Indian and Global Military Spendings in Recent Years (2014–2023)

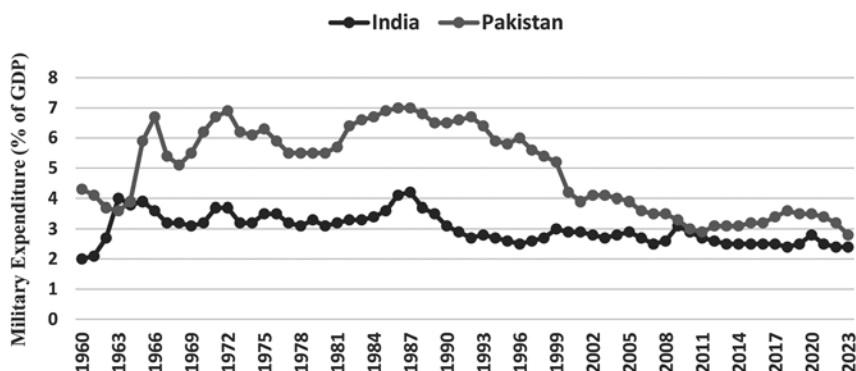


Source: Plotted using SIPRI database 2024.

Notes: Figures are in US\$ billion, at constant 2022 prices and exchange rates. The figures for India include expenditure on the paramilitary forces, including the Border Security Force, the Central Reserve Police Force, the Assam Rifles, the Indo-Tibetan Border Police and, from 2007, the Sashastra Seema Bal, but do not include spending on military nuclear activities.

expenditure in recent times are the rising border tensions and recent instances of border clashes with China's People Liberation Army (PLA) in the Galwan region.¹⁴ The report also shows that India's neighbours, i.e., Pakistan and China, have increased their military expenditures to counter the security dilemma posed by India and the US, respectively. Although India's defence budget as a percentage of GDP has remained constant between 2–3 per cent, especially after the 1990s as shown in Figure 2, in real terms, it has seen a gradual increase in recent years. India's 2024–2025 defence budget is almost 4.97 per cent more than the previous year.¹⁵

Figure 2 India and Pakistan's Military Expenditure (% of GDP) in Recent Years



Source: Plotted using World Bank database, available at <https://data.worldbank.org/indicator/MS.MIL.XPND.GD.ZS?locations=PK-IN>.

Figure 2 depicts a comparative study of India and Pakistan's military expenditure since 1960, with the high peaks of the graph during the 1960s showing a sudden rise in the India's defence budget mainly due to the 1962 Sino-Indian war, while after the 1990s, it almost remains stagnant. On the contrary, Pakistan's military expenditure is higher in terms of percentage of the country's GDP, compared to India, which is primarily due to Pakistan's prime focus on defence to counter the security dilemma posed by India.¹⁶ The current feasibility and affordability of increasing India's defence budget by up to 3 per cent of GDP (recommended by the 2021 Standing Committee on Defence) is quite low, due to socio-economic challenges faced by the world's most populous developing country.¹⁷ However, India has ensured

the synergy between defence and development by adequately focusing on key human resource pillars such as health, education and sanitation.

IMBALANCE IN INDIA'S DEFENCE EXPENDITURE

Worldwide, countries are now significantly focusing on their defence policies, military expenditure, R&D and technological advancement to counter the modern-day security dilemma. Among the major developing countries, some, like India, are in ambiguous positions due to the security challenges posed by their hostile neighbours. With the changing nature of warfare, India has also gradually shifted its gear towards defence modernisation and reconstruction. However, more efforts are required to resonate its capabilities with the demand and doctrine of modern warfare. At present, India maintains one of the world's largest military troops in its three services, with almost 14,38,717 uniformed personnel in the field, which is significantly consuming the major chunk of India's defence budget in the form of pensions, salaries and maintenance.¹⁸

The issue of large number of troops has always been a contested phenomenon with regard to the modernisation process of the Indian Armed Forces, where the transition from quantity to quality and the capacity-building of manpower has become the demand of future warfare. In this regard, countries worldwide are focusing on trimming the size of their troops. In contrast, India lags behind in the rebalancing path. During the COVID-19 crisis, when the government was not able to carry out recruitment rallies, Lt Gen H.S. Panag remarked that,

This shortfall in the recruitment process of IA should not be seen through the lens of failure, but rather as an opportunity by the government. Also, the government additionally needs to reduce its troops by 10% of the current capacity.¹⁹

Therefore, in the era of technological warfare with minimum physical contact with enemy forces, the imbalance in multiple sectors such as defence policies, military expenditure, R&D and technological advancement poses an obstacle for India's future preparedness to combat various threats. Additionally, with limited capital outlay, India will always remain vulnerable and susceptible towards various security concerns. Hence, defence expenditure balance is an integral component of national security.

Question of Imbalance in Army’s Budget: Drawing a Comparison

The IA, which plays a prominent role in any combat situation, consumes more than 50 per cent of India’s defence budget. In India, the sustenance of such a large army through fiscal management is a cumbersome process. Large troops require significant expenditure from the revenue side for their maintenance, salaries and other allowances. Therefore, striking a balance between demand and the available resources for the IA could pose a challenging task. In India, people largely join the army due to its employment prospects and accompanying benefits, such as a secure pension, which provides a social security net for retired army personnel. Of the tri-services of the Indian Armed Forces, IA is the major consumer of the defence budget. Table 2 shows the comparison of defence expenditure incurred by IA on various heads in recent financial years (2021–2022,²⁰ 2022–2023²¹ and 2023–2024²²).

Table 2 Composition of Indian Army Budget in Recent Years (in Rs crore)

Heads	Amount allocated			% of Army budget		
	2021– 2022	2022– 2023	2023– 2024	2021– 2022	2022– 2023	2023– 2024
Salaries^a	1,11,693	1,27,693	1,18,889	37.5%	39%	35%
Pensions	99,921	1,02,808	1,19,300	38.1%	34%	35%
Modernisation^b	30,637	25,909	30,163	8.8%	11%	9%
Maintenance	20,332	20,383	35,475	6.2%	7%	10%
Others	27,490	29,262	37,262	9.5%	9%	11%
Total	2,90,073	3,06,055	3,41,090	100%	100%	100%

Notes: ^a It includes salary for civilians, auxiliary forces, Rashtriya Rifles and J&K Light Infantry; ^b Modernisation funds for the army is calculated from the following heads of the capital outlay: (1) Aircraft and Aeroengine, (2) Heavy and Medium Vehicles, (3) Other equipment, (4) Rolling Stock, (5) Rashtriya Rifles, and (6) assistance for prototype development.

Source: Authors’ own compilation from data obtained from PRS Legislative Research.

Table 2 clearly shows that salaries and pensions are the two major expenditures, consuming almost 70–75 per cent of the IA budget. This trend remained almost constant in recent years as well. Further, it can also be interpreted from Table 2 that an increase in the salaries and pensions of troops is inversely proportional to the capital outlay or modernisation process

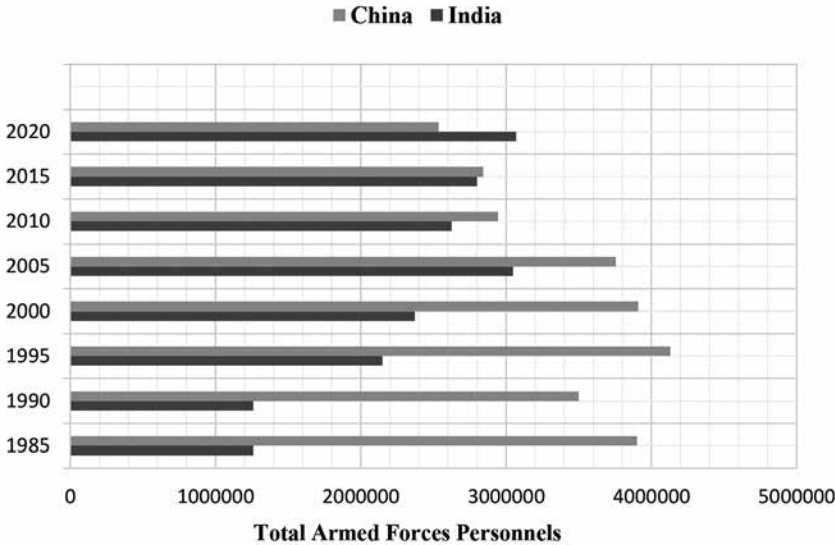
of IA. Although the IA modernisation budget in 2023–2024 has increased by almost 16 per cent compared to the previous year's budget estimates, the overall percentage allocation remained below 10 per cent of the total IA budget, which is a serious concern for India's future preparedness against threat perception. Contrary to this, it is also true that in recent years, IA is working in the direction of the defence modernisation process. In this endeavour, the steps to set up integrated drones and counter-drone systems across its infantry, artillery and armoured battalions is a positive sign.²³ Additionally, the establishment of the Command Cyber Operations Support Wing (CCOWs) will enhance the cyber capabilities of IA.²⁴ Furthermore, Ministry of Defence (MoD) schemes such as Innovation for Defence Excellence (iDEX) and Technology Development Fund (TDF) to promote the innovation ecosystem by collaborating with startups, innovators, Micro, Small and Medium Enterprises (MSMEs), incubators and the academia reflects a forward-looking stance commensurate with a 'Self-Reliant' India in the defence sector.²⁵ In addition, the aforementioned schemes and guidelines have the potential to attract private players to harness the potential of the Indian defence-sector industries through productive means and innovations. In order to boost defence indigenisation, the government has shifted its focus towards R&D with a 'Make in India' campaign to boost the domestic economy in the defence sector. In 2020, the government also revised its Foreign Direct Investment (FDI) policy in the defence sector by allowing 74 per cent FDI from the automatic route and 100 per cent from the government route.²⁶ The process of defence indigenisation requires large investments in R&D to attain long-term goals like 'Atmanirbhar Bharat' in the defence sector. However, the current low allocation is not sufficient to meet the demands of indigenisation and modern warfare. Therefore, to enhance tactical capabilities, niche technologies and critical infrastructure to counter the modern-day security dilemma, more financial resources are required. Thus, it becomes imperative for India to significantly focus on increasing its capital outlay on the IA side as well.

ANALYSIS OF MILITARY TRIMMING AND DEFENCE PENSIONS: A COMPARATIVE VIEW

Countries worldwide have recognised the fact that the feasibility of total warfare is now limited, and a new domain of warfare involving avenues such as space, data, electronics and technology has widened the scope and potential of national security. In this regard, since the 1990s, countries like

China began their army modernisation process, categorically focusing on key aspects of future warfare such as aircraft carriers, submarines and naval vessels (Figure 3).²⁷ In this period, especially after the beginning of the 21st century, China played quite safe by adequately reducing the size of its army and simultaneously focusing on other key aspects of security that require more investment in terms of capital expenditure. This round of rebalancing path focused on making the Chinese forces a leaner and more professional fighting force. The same idea of downsizing the People’s Liberation Army (PLA) was inspired by the two-stage plan for country’s future: first was to complete ‘socialist modernisation’ by 2035, and second was to transform China into a ‘global leader in national and international influence’.²⁸ A comparative analysis of India and China (Figure 3) shows how, over a period of time, China has significantly reduced its army personnel and focused on prioritising its modernisation path through technological advancement.

Figure 3. Comparison between India and China (Military Trimming)

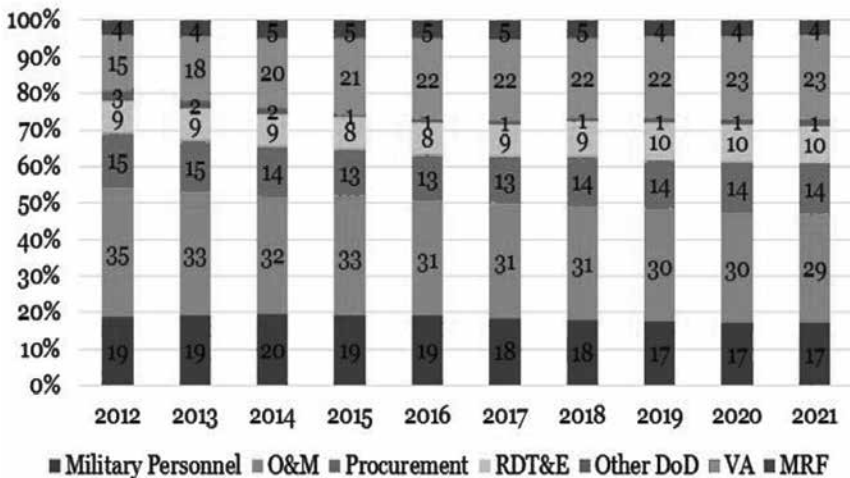


Note: Armed forces personnel are individuals who have served in the regular military forces. It also encompasses members of paramilitary groups, but only if these groups are trained, organised, equipped and managed in a way that allows them to assist or replace the regular military when necessary.

Source: Plotted from World Bank database, available at <https://data.worldbank.org/indicator/MS.MIL.TOTL.PI?locations=IN-CN>.

In contrast, India has not made much advances in the modernisation process primarily due to insufficiency of capital outlay, with most of its allocated funds spent on maintenance, salaries and pensions of the armed forces. The direct consequences of this can be seen in terms of a low number of naval vessels and combat aircraft on the Indian side as compared to China.²⁹ This is the direct result of diverting a major portion of funds towards the salaries and pensions of troops. Further, other countries like the US and the UK have also fixed targets to reduce their manpower in recent times, e.g., Britain has pledged to trim their troops number to 72,500 by 2025.³⁰ Even the world's largest military spender country, i.e., the US, has reduced its manpower by almost one million in recent times, and now its main focus is on the modernisation of the defence sector and warfare through sophisticated technological advancement to protect its borders and enhance national security.³¹ Figure 4 shows the major categories in US military expenditure in recent years. Therefore, if we compare the statistics presented in this figure with that of Figure 5 till 2021–2022, we will see that US's manpower-related expenditure as a percentage of total military expenditure is comparatively low as compared to India.³²

Figure 4 Share of Major Categories in US Military Expenditure



Source: Laxman K. Behera and Madhulika Baniwal, 'Bang for Buck: India's Defence Expenditure in Wider Perspective', Special Feature, Manohar Parrikar Institute for Defence Studies and Analyses (MP-IDSA), 10 July 2020, available at <https://idsa.in/specialfeature/india-defence-expenditure-laxman-madhulika-100720>.

According to the 2021 statistics on US military expenditure, the primary areas that consume major manpower-related expenditure are military personnel, Department of Veterans Affairs and the Military Retirement Fund (MRF), which accounts for almost 44 per cent of the total expenditure in 2021.³³ Also, while it is true that, in absolute terms, the US's overall military expenditure incurred on manpower is more compared to India, as a percentage of military expenditure, it is still low. Therefore, when the world order and geopolitics have widened their scopes and dimensions with different aspects of security, it becomes quite inevitable for countries like India to understand the gravity of this strategic shift in accordance with the demand of future warfare. Furthermore, India's stage of economic development makes it challenging to maintain a balance between defence and development, while also considering various future concerns. Therefore, this comparative enumeration provides us with an insight on the problem associated with manpower-related expenditure in India's defence budget.

Agnipath and Its Financial Implications on Defence Budget

In line with the financial management and budget consolidation of the Indian Armed Forces, the Government of India has implemented the Agnipath scheme for Other Ranks (OR), which provides an opportunity for patriotic and motivated youth to serve the nation for a limited period of time (without paying them any extra perks like pensions and other allowances).³⁴ Under this scheme, the objective is to recruit almost 46,000 Agniveers annually, subsequently increasing this number to almost one lakh in upcoming years. The major objective behind the implementation of this scheme is to make Indian forces leaner by reducing the average age of troops, and simultaneously reducing the defence bill by minimising the expenditures incurred on their salaries and pensions. According to the estimates of the Ministry of Defence (MoD), the Agnipath scheme will reduce the average age of the armed forces from the present 32 years to 24–26 years. Moreover, based on the current assumptions and recruitment process of Agniveer, it has been projected that by 2044, ORs will consist entirely of Agniveers. Therefore, till 2044, the number of pensioners will continue to increase.³⁵ It is also true that the absence of such a scheme will surely increase the burden of defence pensions that otherwise can be utilised in the capital outlay side. Therefore, on the verge of the modernisation and reconstruction process of the Indian Armed Forces, this scheme can help to divert the pension and salaries budget to ramp up India's technological capabilities following future demands. However, major concerns remain, such as how a younger force, lacking technological aid and training, would improve war preparedness and whether this young

force will be capable to combat security threats. Additionally, the question of demobilisation and legal assurance of employment for Agniveers after the completion of their four-year tenure has not been addressed so far. Critics also argue that the Agniveer trainees, due to their expertise in the use of arms, could become a potential nuisance to the society after their rejection from the retained cadre of Agniveers. Although this scheme is accompanied by a strong financial motive and long-term strategy to address the futuristic challenges in the Indian Armed Forces, the aforementioned questions remain open to debate or may require more time to assess the emerging trends regarding this scheme. Hence, the future of this scheme in defence modernisation will depend upon its multifaceted outcomes.

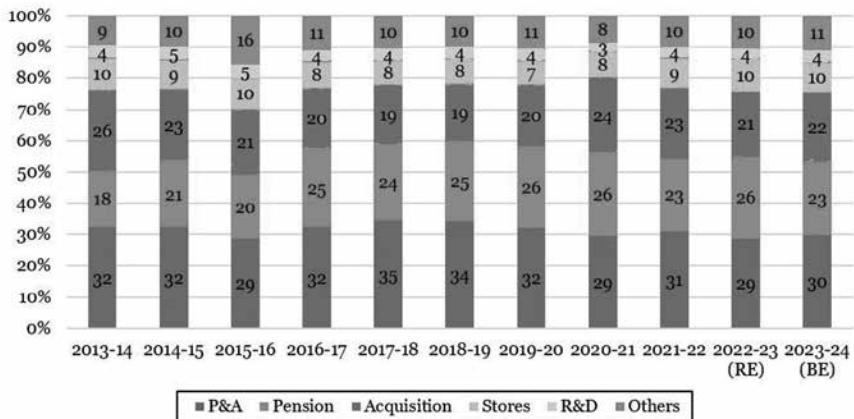
Moreover, the idea of recruiting the troops for a shorter period can also be seen in the Tour of Duty (TOD) scheme, which was propounded by the late Chief of Defence Staff (CDS), General Bipin Rawat.³⁶ However, India still lags significantly in its modernisation and technological enhancement efforts. In order to accelerate this process, the government has established various committees in the recent past, e.g., to resolve the problems associated with defence economics in India. In 2015, then Defence Minister Manohar Parrikar formed a committee chaired by Lt Gen D.B. Shekatkar³⁷ to suggest possible solutions to enhance the combat capabilities and defence expenditure of the Indian Armed Forces. However, the comprehensive details of the Shekatkar Committee were not published in the public domain due to concerns associated with national security. There are many suggested ways to enhance combat capabilities like defence modernisation, reforms in the 'tooth to tail ratio', appointment of a Chief of Defence Staff (CDS), and increasing the defence budget to at least 3 per cent of GDP. Other committees like the Kargil Review Committee and Naresh Chandra Committee³⁸ also provide important recommendations, such as undertaking a thorough review of the national security system, strengthening domestic intelligence, and enhancing surveillance and intelligence capabilities.

ADDRESSING THE IMBALANCE

India is geographically encircled on three sides by ocean and land borders and has a total land border of 15,106.7 km with a coastline of 7,516 km.³⁹ The long chain of land and costal borders has plunged India into situations of continental and ocean dilemma, which require a sufficient amount of manpower to resolve. The rough terrain and geographical conditions of India make it a desirable candidate to possess a sufficient amount of strength in the armed forces. However, excessive troops can adversely affect the

fiscal management of India's defence budget. In addition, India's future preparedness to counter modern-day warfare includes one major hurdle, i.e., the large number of troops in the armed forces. The major proportion of India's defence budget directly goes in the form of Revenue Expenditure and other expenses. In the segment of Revenue Expenditure, salaries and maintenance primarily consume the major proportion of expenditure. Since this type of expenditure does not deal with the creation of new assets, infrastructure, or technology, it is not often seen as a tool for capability enhancement in the armed forces. Figure 5 explicitly shows that more than 50 per cent of India's defence budget is solely consumed by salaries and pensions.

Figure 5 Composition of India's Defence Budget in Recent Years
(Salary & Pension, Store & Capital Procurement, Other Expenditure)



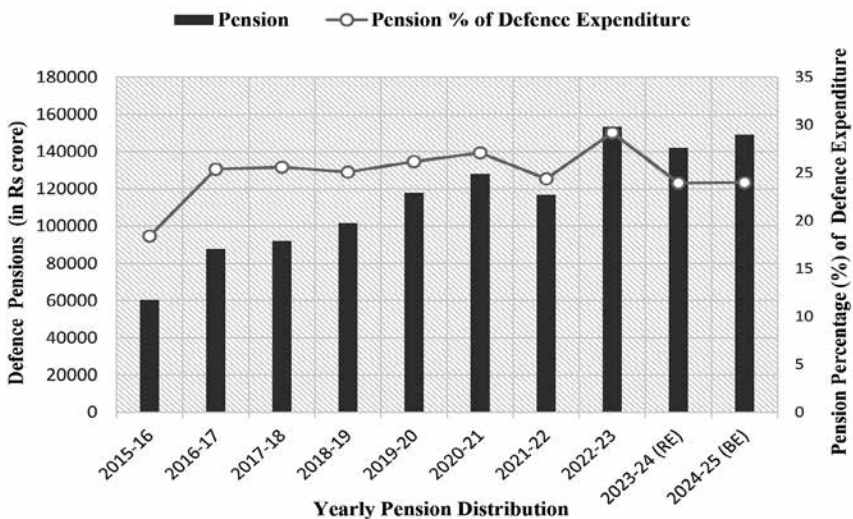
Source: Laxman K. Behera, 'Examining India's Interim Defence Budget 2024-25', ORF Issue Brief No. 693, Observer Research Foundation, February 2024, available at <https://www.orfonline.org/research/examining-indias-interim-defence-budget>.

The consistent growth in salaries and pensions has reduced the funds for capital outlay procurement. Also, the sudden rise in the pension after 2015 is mainly attributed to the One Rank One Pension (OROP) scheme implemented in 2015.⁴⁰ The significant rise in pensions and salaries has consumed part of the defence budget that could have been utilised for the capital outlay of armed forces.⁴¹

Figure 6 depicts the increasing trend of pensions in recent years using real-term data and percentage contribution in the overall defence budget of India. This bar plot clearly depicts how, over a period of time, the proportion of pension has considerably increased in India's defence budget. This has

been primarily attributed to the increasing strength of troops in IA, thereby adversely affecting other sectors that require more investment. The increasing significance of technological warfare in modern times has driven countries into a situation that requires utmost priority on defence modernisation and capability enhancement. Further, the emergence of new cutting-edge technologies like generative AI, space warfare and cyber warfare has expanded the horizon of new threats in the domain of national security. Therefore, in order to ensure national security, the growing share of defence pensions within the overall defence expenditure is not considered to be a positive sign. This increase has adversely impacted the Capital Expenditure, which could rather be utilised for the modernisation of armed forces and for making and purchasing new weapons and technologies. A minimum reduction by proportion in the pension scheme could bring a positive impact on the capital outlay of the defence budget. Therefore, these increasing trends in defence pensions are behaving like a paradox in the domain of defence modernisation. Moreover, it requires synergy between the quality and quantity of troops, and for the same, trimming is required to focus on the technological capabilities of the armed forces. Further, for the sustenance of national security, it is imperative to focus on military rebalancing.

Figure 6 Expenditure on Overall Defence Pensions (2015–2016 to 2024–2025)
(in Rs crore)



Note: Figures for 2023–2024 are revised estimates and for 2024–2025 are budget estimates.

Source: Data plotted from various years of the Union Budget.

Addressing imbalance in India's defence budget allocation requires multifaceted approaches to address various nuances of India's defence budget. It requires optimal utilisation of existing expenditure through reallocation of resources effectively and efficiently. In this domain, the primary focus is to address excess manpower-related expenditure, which requires utmost priority. There are certain strategies that can be considered to address the imbalance:

- To address excess manpower-related expenditure, the first vital step is to address the burgeoning pension costs. In this domain, reviewing pension structures with necessary reforms in pension schemes is the foremost step towards reducing the financial burden.⁴² Besides this, implementing gradual retirement plans with voluntary retirement schemes to encourage personnel obtain early retirement can reduce the additional pension burden. Further, to streamline manpower-related expenditure, optimisation of personnel deployment through conducting regular reviews and assessments is inevitable. This will help the forces to ensure that troops are deployed at places that require them the most.⁴³ Additionally, minimising the non-operational staff that are not contributing to operational readiness can also decrease manpower-related expenditure.
- To make forces more versatile, integrated and effective, one can learn from China's People Liberation Army (PLA), where they have categorically focused on rebalancing its resources away from the Army to the Navy, Rocket Force and Strategic Support Force. That allows it to focus on the maritime and cyber domains.⁴⁴ Further, reduction of non-combat and non-essential personnel helps China to improve its fiscal management. Besides this, PLA's continual transformation *vis-à-vis* its strong commitment towards transforming it from a 'Quantitative' to a 'Qualitative' force by optimising the ratio between various heads, helped it to reduce the non-combat military personnel in the organisation.⁴⁵ A similar kind of approach can also benefit India to achieve its long-term vision of containing manpower costs.
- Increasing the defence budget is an aspect that cannot be ignored in addressing modern-day security challenges. Additionally, to create a synergy between the quality and quantity of manpower, investment in modern technologies is inevitable. In this endeavour, the primary focus must be on technology, which reduces the need for soldiers to physically patrol border territories. Therefore, expenditure in this area has the potential to transform military capabilities to counter modern-day threat perception.

- Increasing budgetary allocation in specialised funds for R&D is quite indispensable. Currently, a mere 0.7 per cent of GDP is being allocated for R&D.⁴⁶ However, by increasing the higher proportion of the budget to this particular factor, a greater number of defence start-ups, industries and AI-driven manufacturing companies can be promoted, which would simultaneously de-escalate foreign dependency and also support an 'Atmanirbhar Bharat'. An example is the concept of the development of the Advanced RADAR technology—such as the Incoherent Scatter Radar (ISR) and NISAR, which is currently under development—although we need more such ground- and space-based advanced systems that can be deployed for surveillance in the Himalayan region. This kind of technology can observe areas beyond the reach of the human eye and would significantly aid in the reduction of future manpower capacity in armed forces required for surveillance.
- Technological advancement in the defence forces brings multifaceted ramifications on reducing manpower-related expenditure. In this endeavour, implementation of automation solutions has the potential to reduce the need of manual labour. Additionally, leveraging data analytics methods for each sector of the defence services could monitor the efficacy and performance, which helps in identifying the sectors that require more attention.⁴⁷
- Organisational restructuring of defence forces is imperative to address the imbalance in defence expenditure. In this domain, reviewing and rationalising the structure of military units by merging and streamlining command structures can reduce the number of high-level positions and administrative unit overheads.⁴⁸ Further, applying lean management practices and strengthening the culture of continuous improvement maintains operational efficiency and reduces manpower needs. Also, proficiency is inevitable for any force to achieve its immediate targets, which can be enhanced through training. In this particular domain, training personnel to become efficient and disciplined can reduce the need for additional staff in the forces.

It is apparent that the implementation of Agniveer schemes, deliberation on capex consolidation, along with the jointness of various commands in the Indian Armed Forces are a step in the right direction, considering the evolving nature of modern warfare. More such assertive solutions are required to address the various nuances of modern-day security dilemma. Therefore, the aforementioned solutions have enormous potential to address imbalance

in India's defence expenditure by containing manpower-related costs, which eventually can be utilised for capital outlay and improving overall defence capabilities.

CONCLUSION

In the period of overwhelming technological advancement, when India is shifting its footprint towards Industrial Revolution 4.0,⁴⁹ it is vital for India to explicitly focus on firepower and state-of-the-art technologies to enhance its capabilities. In an age of stand-off weapons, electronic warfare, drones and other cutting-edge technologies, physical warfare is no longer a viable strategy for defeating enemy troops, thereby marking the end of face-to-face combat. Therefore, the focus must be to create and maintain more agile, mobile and technology-driven forces to win short wars. In these endeavours, India needs to reduce excess manpower-related costs by adequately trimming the size of the Indian armed forces and maintaining an adequate balance between 'Quantitative' and 'Qualitative' forces. Moreover, the immediate focus needs to be primarily on the re-assessment of pensions, relocation of financial resources, optimisation of military personnel management along with the rationalisation of military units. Subsequently, to increase the efficiency and productivity of Armed Forces, optimum utilisation of advanced automation technologies through increased investments in the R&D and tech sectors is a much-needed effort. It is also true that technology cannot fulfil the aspirations of human valour unless and until human beings do not constructively operate it, and therefore, sufficient amount of manpower is still required. Additionally, excess troops generally leads to more casualties and burdens the fiscal management of the country. Hence, addressing the issue of imbalance between pensions, salaries and capital outlay should be the primary focus of the Indian defence establishment. This could be made possible by creating an adequate synergy between the quality and quantity of manpower and rebalancing and restructuring India's military system.

NOTES

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