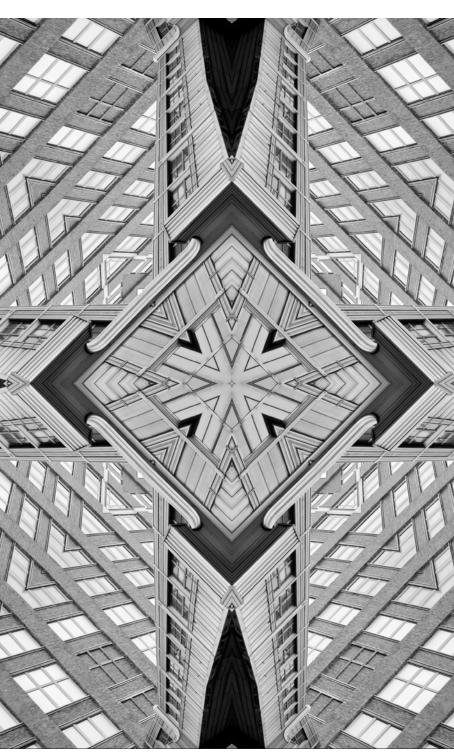


## Issue Brief

ISSUE NO. 523 FEBRUARY 2022



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### Bigger, Not Necessarily Better: India's Defence Budget 2022-23

### Laxman Kumar Behera

### Abstract

This brief examines India's defence allocations for 2022-23. It outlines the conceptual and definitional aspects of the defence budget, examines defence allocations from the prism of state of the economy and public finance, and explores the potential impacts of the budget announcements on the defence production sector of the government's self-reliance mission, *Atmanirbhar Bharat Abhiyan*. The analysis also utilises a comparison of India's military spending vis-à-vis those of its principal rivals, China and Pakistan. The brief argues for a shift in orientation in India's defence budget, from personnel-intensive to modernisation-driven.

Attribution: Laxman Kumar Behera, "Bigger, Not Necessarily Better: India's Defence Budget 2022-23," ORF Issue Brief No. 523, February 2022, Observer Research Foundation.



resenting the Union Budget 2022-23 in Parliament on February 1st, Finance Minister Nirmala Sitharaman announced, among many others, an increase in allocations for the Ministry of Defence (MoD) by 9.8 percent to INR 5.25 trillion (USD 70.6 billion).<sup>a</sup> The near double-digit rise in the defence allocation comes amidst India's ongoing military stand-off with China in eastern Ladakh, which is yet to be diffused at the time of writing this brief, even after 14 rounds of talks at the level of the countries' Corp Commanders. How does the defence budget for FY 2022-23 fare against the expectations of the defence forces? What are the drivers of the rise in allocation and how does it fare vis-à-vis the defence spending of India's principal adversaries?

This brief provides a conceptual clarity of India's defence budget and examines the latest defence allocations from the prism of the state of the country's economy and public finance. It also seeks to outline the potential impact of the budget announcements on the defence aspect of *Atmanirbhar Bharat Abhiyan*, or the Union government's self-reliance mission for India. The analysis offers a comparison with China's and Pakistan's military spending.

How does the defence budget for FY 2022-23 fare against the expectations of the defence forces?

a Conversion from INR to USD is based on average exchange rate (INR 74.338 = 1USD) of January 2022.



# Defining India's Defence Budget

here is no official, singular definition of what constitutes India's "defence budget", and consequently, different figures are being circulated. Until a few years ago, the Defence Services Estimates (DSE)—an annual publication prepared by the Finance wing of the MoD—was, by convention, considered as India's defence budget. The document, which covers the expenses of the three armed forces, the Defence Research and Development Organisation (DRDO), and the erstwhile Ordnance Factories (OFs), does not, however, cover MoD's two other items of expenditure. Those items are separately accounted for under the Defence Pensions and MoD (Civil) heads.

In recent years, the MoD in its official submissions, including in replies to Parliament, has begun showing defence pensions and civil expenses of various defence establishments as part of the defence budget. The deviation from the conventional definition is perhaps in response to wider perceptions prevalent among analysts of India's strategic affairs about the inadequacy of the country's defence spending.

The MoD has also started using a more liberal definition of "allocations". Unlike the earlier practice of defining India's defence budget as the net allocations (i.e., gross allocations minus receipts and recoveries), the MoD has used at least once, in 2021, its gross allocations. In doing so, the numbers tend to show an increasing share of defence spending in the country's gross domestic product (GDP). Since Parliament gives its assent to the gross allocations (as opposed to net budget) and sets the upper limit of expenditures to be incurred, the MoD is technically correct to refer to them as its budget. The fact, however, is that for the MoD—indeed, for any ministry or department—the effective allocation is what is traditionally referred to as the net budget. The reference to the gross allocations seems to be driven by the same desire to allay concerns about India's perceived inadequate defence expenditure. In the 2022-23 budget, the MoD's gross allocations exceed the net allocations by INR 303.18 billion (INR 5,554.84 billion minus INR 5,251.66 billion)<sup>2</sup>—this amount would be credited to the central government's accounts.

b With effect from October 01, 2021, all the erstwhile 41 OFs, which were operating under the control of the Kolkata-headquartered Ordnance Factory Board (OFB), have been converted into seven Defence Public Sector Undertakings (DPSUs), taking the number of DPSUs from earlier nine to 16.

The MoD (Civil) caters to expenses of such organisations as Border Roads Organisation (BRO), Coast Guard Organisation, Defence Estate Organization, Jammu and Kashmir Light Infantry, and the Institute for Defence Studies and Analysis (IDSA), among others.





To be sure, the MoD's entire allocations, whether gross or net, do not reflect India's *true* defence spending. Some large expenses, especially those related to the four border guarding forces (BGFs)<sup>d</sup> and India's defence-related nuclear, space and cyberspace activities conducted outside the MoD-controlled entities – are incurred by some other ministries or departments. India's actual defence spending will thus be greater than what is reflected in the MoD's allocations. Table 1 shows the net budget of the MoD and those of the four BGFs which are part of the Ministry of Home Affairs (MHA). As can be seen, of India's larger defence budget of INR 5.7 trillion, nearly 8 percent is spent through the MHA for the defence of the country's external borders. For consistency, this brief uses *net allocations* of the MoD and its various components.

### Table 1 India's Larger Defence Budget (FY2022-23)

Ministry	Component	INR Billion	% of Total	% of CGE	% of GDP
	DSE	3853.70	68	9.77	1.49
MoD	Defence Pensions	1196.96	21	3.03	0.46
MoD Total	MoD (Civil)	201.00 5251.66	3.5 92	0.51	2.04
MOD Total					
	BSF	227.18	4.0	0.58	0.09
MHA	ITBP	74.61	1.3	0.19	0.03
MITIA	AR	66.58	1.2	0.17	0.03
	SSB	76.54	1.3	0.19	0.03
MHA Total		444.92	8	1.13	0.17
Grand Total		5696.58	100	14.44	2.21

Source: Author's own, based on Union Budget 2022-23.

d These are the Border Security Force (BSF), Indo-Tibetan Border Police (ITBP), Assam Rifles (AR), and Sashastra Seema Bal (SSB).



# State of the Economy and Public Finance

strong treasury supports a strong army—so advised the fourth century BCE Indian exposition on statecraft, *Arthashastra*, by strategist Kautilya. What it means is that a strong and growing economy leads to a healthy collection of revenues for the government, which it can then spend on a wide range of activities including defence and security. Though the Indian economy is now the sixth largest in the world,<sup>e</sup> it continues to face massive socio-economic challenges, while needing to spend adequately on the defence forces. Volatility in economic growth and a low tax base,<sup>f</sup> in particular, have restrained the capacity of successive governments to spend adequate amounts on desired areas.

That said, the Indian economy, after a sharp contraction of 7.3 percent in 2020-21, has made a notable rebound. As forecast in the latest *Economic Survey*, India's real GDP could grow by 9.2 percent in the present fiscal year and by 8.0-8.5 percent in 2022-23<sup>3</sup> — this will enable the country to regain the status of fastest growing large economy in the world. The rebound in economic growth also coincides with impressive performance in revenue collection, exports, foreign exchange reserves, and movement in consumer price index.

The turnaround of the Indian economy notwithstanding, the health of public finance is still under a great deal of stress. Owing to sluggish GDP growth, further aggravated by the Covid-19-induced slump in economic activities in 2021-22, the government has resorted to larger-scale market borrowings (or "fiscal deficit" in budget parlance) to meet its various expenditures. The borrowing is massive, representing more than 42 percent of the government's total revenues in 2022-23.

Using conventional economic wisdom that borrowing is welcome as long as it is put to productive use, the finance minister has made a bold attempt in allocating a greater part of the borrowings for creation of capital assets. This is reflected in the central government's latest capital outlays, which has increased by a hefty 35 percent.<sup>4</sup> The government is aiming that the higher capital allocations would pump-prime the economy, crowd-in private investment, and help create a conducive environment for robust and sustainable growth.

e India's GDP (\$2.95 trillion) for 2021 is behind that of the US (\$22.9 trillion), China (\$16.9 trillion), Japan (\$5.1 trillion), Germany (\$4.2 trillion), and the UK (\$3.1 trillion) and ahead of France (2.94 trillion). See: International Monetary Fund, World Economic Outlook Database, October 2021.

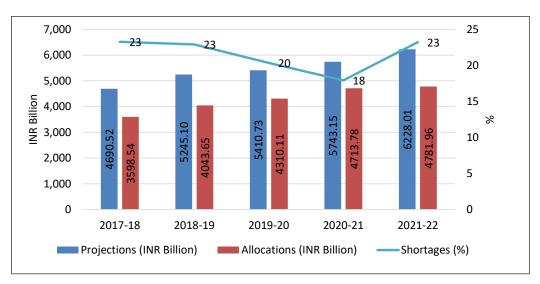
India's tax-to-GDP ratio in 2017-18 was estimated at 17.6%, meaning for a given value of the GDP, only 17.6% accrues as tax to the government. In comparison, the average for the Organisation for Economic Co-operation and Development (OECD) countries is 34.2%. Ministry of Finance, Indian Public Finance Statistics 2017-18, p. 14 and Ministry of Finance, Economic Survey 2015-16, Vol. I, p. 108.



# State of the Economy and Public Finance

Given this context, what are the implications on the MoD's latest allocation? Does MoD's budget, which represents an increase of INR 469.71 billion, meet all expectations? A cursory viewing says it does not, considering the huge shortages in the past successive years. As Figure 1 illustrates, there has been a persistent shortfall in MoD's allocations in the past five years, with the shortages in 2021-22 alone amounting to INR 1,446 billion. Significantly, about 53 percent (or INR 766 billion) of the total shortages in 2021-22 are in capital expenditure, which funds the key modernisation projects of the defence forces that are supposed to keep them technologically abreast to fight a modern war.<sup>5</sup>

### Figure 1 MoD's Resource Projections Vs. Allocations



Source: Author's own, based on Standing Committee on Defence, Demands for Grants, 2021-22, 19th Report, p. 10

Since increase in the latest allocations does not cover the existing shortages, the MoD, and the armed forces in particular, would unsurprisingly feel disappointed. Such sentiment, however, carries little weight, primarily because the shortages are not unique to the MoD. Other ministries, dealing with equally vital functions of government, similarly grapple with shortages. The Ministry of Home Affairs (MHA), for example—which is responsible for domestic security—also faces periodic shortages; the shortfall in its police budget in 2021-22 alone amounts to 18 percent.<sup>6</sup> Indeed, one noted security expert has voiced serious concerns that the MHA's recurring resource shortages have led to a "dangerously-



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anaemic state of the intelligence and police services", with serious consequences on internal stability of the country.<sup>7</sup> The analyst is calling for parity in India's internal and external security expenditures, as it is in certain countries. Though not a country to make a perfect comparison with because of its authoritarian regime, China, the 2<sup>nd</sup> largest military spender in the world, spends more on internal security than on external defence.<sup>8</sup> In comparison, the MoD's latest budget is nearly 2.8 times bigger than that of the MHA's INR 1,858 billion.

Moreover, although the MoD has been facing shortages for a long time, it has done little to maximise its allocated budget. Over the years, the personnel cost of the MoD has increased from less than 50 percent to over 60 percent, eating into the crucial modernisation and equipment maintenance expenditures. The MoD is yet to correct the anomaly through some hard reforms, as suggested by several high-level government committees. Prime Minister Narendra Modi, in his 2015 address at the Combined Commanders' Conference, had also urged the defence establishment to focus on technology rather than "constantly seeking to expand the size of our forces."

53% of the total shortages in the 2021-22 defence allocations are in capital expenditure, which funds modernisation projects that are supposed to keep the forces abreast to fight a modern war.

s mentioned earlier, the MoD's allocation has increased by 10 percent over the previous allocation—as provided in the Budget Estimate (BE). The increase, however, translates to less than 5 percent over the revised estimate (RE) (see Table 2). Among all the components, the MoD (Civil) has grown the most in both BE and RE, largely driven by the increase in capital spending of the Coast Guard and the Border Roads Organisation.<sup>g</sup>

### Table 2 Key Components of MoD's Budget (FY2022-23)

	MoD	Defence	Defence	MoD
	(Civil)	Pensions	Services	Total
2021-22 (BE)	152.57	1158.50	3470.88	4781.96
(INR Billion)	(3%)	(24%)	(73%)	(100%)
2021-22 (RE)	175.87	1168.78	3684.18	5028.84
(INR Billion)	(3%)	(23%)	(73%)	(100%)
2022-23 (BE)	201.00	1196.96	3853.70	5251.66
(INR Billion)	(4%)	(23%)	(73%)	(100%)
% Increase in 2022- 23 (BE) over 2021-22 (BE)	31.7	3.3	11.0	9.8
% Increase in 2022- 23 (BE) over 2021-22 (RE)	14.3	2.4	4.6	4.4

Source: Author's own, based on Union Budget 2022-23.

Note: Figures in parentheses show the respective share in MoD's total. Figures may not add up due to rounding.

The hike in the Border Roads Organisation's budget is intended to "expedite the progress of creation of border infrastructure including important tunnels (Sela and Naechiphu tunnel) and bridges on major river gaps. See: Press Information Bureau, Ministry of Defence, "Union Budget 2022-23", February 01, 2022.

In the MoD's overall budget of FY2022-23, the capital expenditure has outgrown the revenue expenditure (14 percent vs. 7.9 percent), resulting in improvement in the revenue-capital ratio from 71:29 in 2021-22<sup>12</sup> to 69:31 in 2022-23 (see Table 3). (See Annexure 1 for key defence statistics for 2021-22 and 2022-23.)

### Table 3 Revenue and Capital Share in MoD's Budget (FY2022-23)

	Revenue Expenditure	Capital Expenditure	Total
MoD (Civil) (INR Billion)	120.50	80.50	201.00
Defence Pension (INR Billion)	1196.96	0.00	1196.96
Defence Services (INR Billion)	2330.01	1523.70	3853.70
Total (INR Billion)	3647.47	1604.20	5251.66
% of Total	69	31	100

Source: Author's own, based on Union Budget 2022-23.

However, although in percentage terms, the capital expenditure has outgrown the revenue expenditure, the latter still contributes more to the overall growth, in absolute terms; this is largely because of the volume effect. Of the total hike of INR 469.71 billion in the MoD's overall outlays, the contribution of the revenue expenditure is INR 267.85 billion, or 57 percent.

Within the DSE, which caters mostly to the armed forces, the contribution of the revenue expenditure is also on a similar line: about 55 percent (INR 209.73 billion). Nearly 86 percent of the increase in revenue expenditure, or 47 percent of total additional allocations provisioned through the DSE, is on account of the hike in pay and allowances (P&A) of the armed forces. In comparison, stores budget of the three forces—meant for meeting the requirements of repair and maintenance of the existing weapons and platforms in the inventory—has



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added a mere INR 3.01 billion. The modernisation budget, on the other hand, has contributed a healthy 32 percent to the DSE's overall increase. However, the bulk of the increase is due to the massive hike in the Navy's procurement budget, while the Army's modernisation budget has been reduced by INR 47.78 billion.

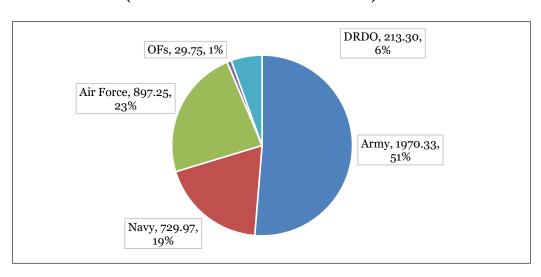
The reduction in the Army's modernisation budget does not seem to be driven by the resource crunch, rather its inability to spend the allocated budget. Up till the RE stage, the Army could spend only 64 percent of its previous allocation, in comparison to 99.7 percent for the Air Force and 139 percent for the Navy. Coming in the midst of a prolonged military stand-off in eastern Ladakh, the Army's low spending ability does not augur well.

In percentage terms, capital expenditure has outgrown revenue expenditure; in absolute terms, the latter still contributes more to the overall growth of defence allocations.



he personnel-intensive Indian Army continues to corner the biggest share in the DSE (see Figure 2), although its share has declined to 51 percent from 54 percent in the previous budget. Notably, its decline in share has not improved its revenue-capital ratio. Rather, it has worsened further from 80:20 to 86:14 (see Table 4 for revenue-capital ratio of armed forces). With a standing force of 1.2 million (or 85 percent of the total uniformed strength of the three forces), <sup>13</sup> the Army's salary expenses alone make up over 70 percent of its total budget.

### Figure 2 Share of Defence Services in DSE, 2022-23 (INR Billion and %)



Source: Author's own, based on Union Budget 2022-23

Note: The total of all defence services excludes the INR 13.10 billion capital outlays earmarked for 'Investment in Public Enterprises.' The allocation for OFs include INR 25.0 billion armarked for 'Emergency Authorization for newly created DPSUs.'



Table 4
Revenue-Capital Ratio of Armed Forces,
2022-23

	Army	Navy	Air Force
Revenue Expenditure (INR Billion)	1648.98	254.06	328.73
Capital Expenditure (INR Billion)	321.35	475.91	568.52
Total (INR Billion)	1970.33	729.97	897.25
Share of Revenue Expenditure (%)	84	35	37
Share of Capital Expenditure (%)	16	65	63

Source: Author's own, based on Union Budget 2022-23.

The biggest gainer in the DSE 2022-23 is the Navy, whose share has jumped from 16 percent to 19 percent. However, it is not clear if the increase in the Navy's share is due to the MoD's concerted efforts to strengthen India's naval capability or due to naval authorities' smart acquisition of major platforms that has often benefited from budgets surrendered by other services, especially the army. If the Army had fully utilised its FY2021-22 procurement budget and got a decent hike on top of it in the latest allocations (which seems logical given the current border crisis), would the Navy's share have been what is being reflected in 2022-23?

From the perspective of India's maritime security, the need for a sustained increase in the naval budget is undeniable, especially in the context of China's rapidly expanding naval force, its increasing forays into the Indian Ocean, and India's declared desire for a free, open and inclusive Indo-Pacific. The Navy being the smallest service and having the lowest share in the budget, the naval planners have been constrained to develop a force level commensurate with India's growing maritime security interests. For example, the current naval plan aims for a 200-ship fleet, including the third aircraft carrier, by 2027 from the present fleet strength of 137 ships. If In comparison, China, with over 350 warships, surpassing that of the US, is currently the world's largest navy. Some naval experts argue that the Navy's budget has historically been left hostage to the Army's excessive focus on personnel, leaving less for other services. They, in turn, demand a cut of 200,000 in the Army's personnel to free resources for all-round development of Indian military capability. In turn, demand a cut of 200,000 in the Army's personnel to free resources for all-round development of Indian military capability.



able 5 summarises the latest modernisation budget of the armed forces with respect to the BE and RE of 2021-22. As can be seen, the Army is the only service whose budget has been reduced over the previous allocation. Moreover, there has been a reduction in all its major procurement heads: heavy and medium vehicle (H&MV), aircraft and aeroengine, and other equipment (see Annexures 2-4 for modernisation head-wise budget of each service). Coming at a time when it is facing a serious challenge in countering Chinese military aggression in the Ladakh border, its reduced modernisation spend is a serious concern.

The reduction in the Army's modernisation budget also comes in the backdrop of a sharp reduction of its previous allocation at the RE stage. The reduction at RE is in stark contrast with its projected shortfall of 23 percent in that year (see Table 6). This raises serious questions on the credibility of such projections. Along with the Army, the Air Force—the most capital-intensive service—had also projected a huge shortfall (32 percent) in its modernisation budget, but could not fully utilise a smaller allocation.

Table 5
Modernisation Budget of the Armed
Forces

	2021-22 (BE) (INR Billion)	2021-22 (RE) (INR Billion)	2022-23 (BE) (INR Billion)	% Increase in 2022-23 (BE) over 2021-22 (BE)
Army*	305.87	194.85	258.09	-16
Navy	322.35	447.08	465.18	44
Air Force	488.70	487.07	514.85	5
Total	1116.91	1129.00	1238.12	11

Note: \* Figures for army are approximate

Source: Author's own, based on Union Budget 2022-23.



Table 6
Shortfall in Modernisation Budget, 2021-22

	Projection (INR Billion)	Allocation (INR Billion)	Shortfall (INR Billion)	Shortfall (%)
Army	399.77	306.37	93.40	23
Navy	658.89	310.31	348.58	53
Air Force	721.80	493.21	228.59	32
Total	1780.46	1109.89	670.57	38

Note: Navy excluding Joint Staff

Source: Standing Committee on Defence, Demands for Grants, 2021-22, 21st Report, p. 13.





part from the allocations for the MoD, the finance minister also announced a number of steps to further enhance self-reliance in defence. Continuing from her 16 May 2020 reform measures as part of the *Atmanirbhar Bharat Abhiyan*, Finance Minister Sitharaman announced that "68 per cent of the capital procurement budget will be earmarked for domestic industry in 2022-23, up from 58 per cent in 2021-22." The enhanced share for the domestic procurement is likely to boost the domestic industry's confidence and provide them greater visibility of the magnitude of business. At the same time, it sends a strong signal to foreign manufacturers about the Modi government's determination for indigenisation. The signalling is likely to force overseas companies to change their business strategy—from acquiring defence contracts directly from the MoD, to winning them through industrial cooperation with their Indian counterparts.

From the Indian industry's perspective, the most significant announcement came when the FM stated that the "Defence R&D will be opened up for industry, start-ups and academia with 25 per cent of defence R&D budget earmarked." To further broaden the R&D base, Sitharaman also announced, the private sector would be encouraged to undertake design and development of defence items though collaboration with the DRDO. Plugging a critical gap in the existing system, the FM also announced the government's intention to establish an "independent umbrella body" to meet the industry's testing and certification needs.

While these steps are in the right direction, certain enabling provisions need to be put in place for effective implementation, especially for funding the industry to enable it to undertake R&D. So far, defence R&D has been the monopoly of the DRDO, with little R&D being done by the industry. The new mechanism, while complementing the DRDO's R&D efforts, need to be independent, to promote competition and, therefore, innovation.

The enhanced share for domestic procurement could boost the domestic industry's confidence.



he ongoing military stand-off in the eastern Ladakh has reignited concerns about a potential two-front war for India. Although China has not come to Pakistan's direct rescue in the latter's earlier conflicts with India, the same cannot be assumed in the future. Given Beijing's expanding economic, security, and strategic interests in Pakistan, it could try to intervene in any India-Pakistan conflict to protect those stakes. Pakistan, for its part—given its ideological hostilities towards India, is also likely to take advantage of any India-China conflict. The question is whether India's defence spending caters to such eventualities.

At USD263 billion in 2020, the combined military spending of Pakistan and China is nearly 3.6 times bigger than India's. China alone outspends India by a margin of USD180 billion (i.e., USD252 billion vs. USD 72 billion).<sup>17</sup> More significantly, the combat potential of China's military spending is perhaps even higher that its budget suggests. Unlike India which spends about 60 percent of its defence budget in personnel cost, China spends less than a third, thereby able to devote a substantial part of its much larger budget for modernisation.<sup>18</sup> There is wide disparity between Indian and Chinese military spending; India cannot match China's in the near future. However, it could still deter Chinese hegemony through a greater focus on technology-driven modernisation. For this to happen, Indian defence planners have to progressively reduce personnel-centric growth in defence allocations, which has been the norm in the past several years.

In 2020, the combined military spending of Pakistan and China was nearly 3.6 times bigger than India's.



n the backdrop of the ongoing border crisis, a 10-percent increase in the MoD's allocations for FY22-23 may appear inadequate. This is more so given the recurring shortages reported by the defence establishment, especially for modernisation efforts. However, as explained in this brief, the latest defence allocations need to be viewed from the perspective of the Army's inability to spend the allotted modernisation budget and also of strained public finances, and the need for rejuvenating the Indian economy through greater capital investment.

Given the ongoing military stand-off at the border, the surrender of the previously allocated budget, particularly for the modernisation of the Indian Army, could hardly be justified. Instead of demanding more resources, and showing a big annual shortfall in allocations, as has been the past practice, the defence forces would be better off in utilising its allocated budget in a timely manner. Perhaps, the Army could learn some lessons from the Navy which, through smart and timely acquisition, has been able to increase its share.

It would also do the MoD well to find a balance between the personnel costs, on one hand, and modernisation and equipment maintenance, on the other. Excessive personnel-driven defence budgets—which have been the norm in recent years—leave little for equipment maintenance, cause modernisation efforts to drag, disincentivise local R&D and industry players, and hamper India's overall defence preparedness. The imperative is for the MoD to heed the recommendation of past committees as well as the prime minister's 2015 advice, and bring necessary reforms to reorient the defence budget towards greater modernisation. The realisation has to be that a bigger budget is not necessarily better if the additional amount does not support India's hard-defence capability that is critically dependent on greater allocations for capital acquisition and equipment sustenance. The india's personnel of the personnel of the other capability dependent on greater allocations for capital acquisition and equipment sustenance.

The imperative is for the MoD to heed recommendations and bring necessary reforms to reorient the defence budget towards greater modernisation.

Conclusion



### Annex 1 **Key Defence Budget Statistics**

Indicator	2021-22	2022-23
Defence Services Budget (INR billion)	3470.88	3853.70
Growth of Defence Services Budget (%)	7.4	11.0
Revenue Expenditure of Defence Services (INR billion)	2120.28	2330.01
Growth of Revenue Expenditure of Defence Services (%)	1.3	10
Share of Revenue Expenditure in Defence Services Budget (%)	61	60
Capital Expenditure of Defence Services (INR billion)	1350.61	1523.70
Growth of Capital Expenditure of Defence Services (%)	19	11
Share of Capital Expenditure in Defence Services Budget (%)	39	40
Share of Capital Expenditure of Defence Services in Central Government Capital Expenditure (%)	24	20
Capital Acquisition (INR billion)	1114.63	1244.09
Growth of Capital Acquisition (%)	24	12
Share of Defence Services Budget in GDP (%) *	1.50	1.49
Share of Defence Services Budget in Central Government Expenditure (%)	9.96	9.77
Defence Pension (INR billion)	1158.50	1196.96
Growth of Defence Pension (%)	-13.4	3.32
MoD (Civil) (INR billion)	152.57	201.00
Growth in MoD (Civil) (%)	5.2	32
MoD's Budget (INR billion)	4781.96	5251.66
Growth in MoD's Budget (%)	1.45	9.82
Share of MoD Budget in GDP (%) *	2.06	2.04
Share of MoD Budget in Central Government Expenditure (%)	13.73	13.31

Note: \* Based on GDP's revised estimate for 2021-22 and budget estimate for 2022-23.

Source: Author's own, based on Union Budget (2021-22 and 2022-23); and Lok Sabha, "Modernisation fund for the armed forces", Unstarred Question No. 1754, Answered on February 11, 2022.



Annex 2 Modernisation Expenditure of the Indian Army

Modernisation Head	2021-22 (BE) (INR Billion)	2021-22 (RE) (INR Billion)	2022-23 (BE) (INR Billion)	% Increase in 2022-23 (BE) over 2021-22 (BE)
Aircraft &				
Aero-Engine	42.24	24.95	20.70	-51
H&MV	26.73	19.42	18.17	-32
Other				
Equipment	234.90	148.97	217.22	-8
Rolling Stock	1.00	0.50	1.00	0
Rashtriya Rifles	1.00	1.00	1.00	0
Total	305.87	194.85	258.09	-16

Note: Figures for Army are approximate

Source: Author's own, based on Union Budget 2022-23.

Annex 3 Modernisation Expenditure of the Indian Navy

Modernisation Head	2021-22 (BE) (INR Billion)	2021-22 (RE) (INR Billion)	2022-23 (BE) (INR Billion)	% Increase in 2022-23 (BE) over 2021-22 (BE)
Aircraft &				
Aero-Engine	55.11	80.14	59.26	8
H&MV	0.30	0.15	0.30	0
Other				
Equipment	55.00	75.00	60.00	9
Joint Staff	12.04	9.72	12.68	5
Naval Fleet	160.00	247.17	294.52	84
Naval Dockyard/				
Projects	39.90	34.90	38.42	-4
Total	322.35	447.08	465.18	44

Source: Author's own, based on Union Budget 2022-23.



Annex 4
Modernisation Expenditure of the
Indian Air Force

Modernisation Head	2021-22 (BE) (INR Billion)	2021-22 (RE) (INR Billion)	2022-23 (BE) (INR Billion)	% Increase in 2022-23 (BE) over 2021-22 (BE)
Aircraft & Aero-Engine	242.68	267.30	189.66	-22
H&MV	1.20	0.93	2.10	75
Other Equipment	244.81	218.83	323.09	32
Total	488.70	487.07	514.85	5

Source: Author's own, based on Union Budget 2022-23.



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