

Demand for Grants 2022-23 Analysis

Defence

The Ministry of Defence frames policies on defence and security-related matters, and ensures its implementation by the defence services (i.e. Army, Navy and Air Force). In addition, it is responsible for production establishments such as defence public sector undertakings, research and development organisations, and ancillary services that assist the defence services, such as the Armed Forces Medical Services.

This note analyses budgetary allocation and expenditure trends of the Ministry. The note also discusses certain issues such as the persistent shortfall in budget allocation to the defence forces versus projected needs, high burden of payment of pensions, and inadequate production capacity of the domestic defence industry.

Overview of finances

In 2022-23, the Ministry of Defence has been allocated Rs 5,25,166 crore. This includes expenditure on salaries of armed forces and civilians, pensions, modernisation of armed forces, production establishments, maintenance, and research and development organisations.

The allocation to the Ministry of Defence is the highest (13%) among all ministries of the central government.

Budget Announcements

In order to reduce imports and promote self-reliance, the Budget for 2022-23 proposed that 68% of the defence capital procurement budget will be earmarked for the domestic industry. This has been increased from 58% in 2021-22. Defence research and development will be opened up for industry, start-ups and academia. Private industry will be encouraged to take up design and development of military platforms and equipment in collaboration with Defence Research and Development Organisation and other organisations.

Issues to consider

India continues to be among top global military spenders

According to the Stockholm International Peace Research Institute (SIPRI), India was the third-largest defence spender in absolute terms in 2020 after USA and China.¹ While China spends a lower proportion of its GDP on defence than India, its larger economy implies that it spends about 3.5 times as much as India. Pakistan’s defence budget is about a seventh of India’s, though it is a larger proportion of its GDP.

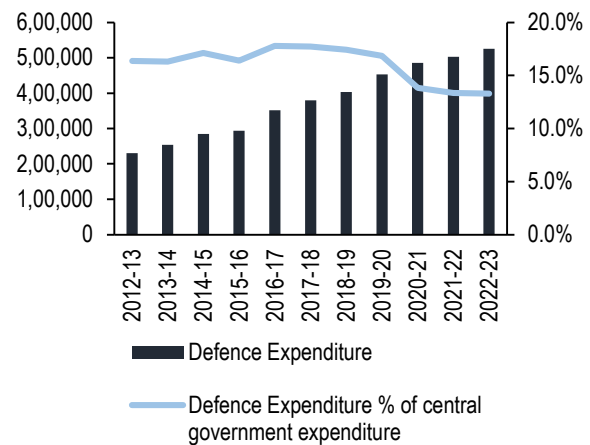
Table 1: Top military spenders and Pakistan (2020)

Country	Expenditure (in USD billion)	Expenditure (as % of GDP)
USA	778	3.7%
China	252	1.7%
India	73	2.9%
Russia	62	4.3%
UK	59	2.2%
Pakistan	10	4.0%

Note: Figures for India include expenditure on Border Security Force, Central Reserve Police Force, Assam Rifles, Indo-Tibetan Border Police, and Sashastra Seema Bal. Sources: SIPRI Military Expenditure Database, Stockholm International Peace Research Institute, 2021; PRS.

However, India’s defence spending as a proportion of its total government expenditure has been decreasing. In the last decade (2012-13 to 2022-23), the budget of the Ministry of Defence has grown at an annual average rate of 8.6%, while total government expenditure has grown at 10.8%. During this period, defence expenditure as a proportion of central government expenditure decreased from 16.4% in 2012-13, to 13.3% in 2022-23. The year-wise budget of the Ministry is shown in Figure 1.

Figure 1: Budget of Ministry of Defence (2012-13 to 2022-23) (in Rs crore)



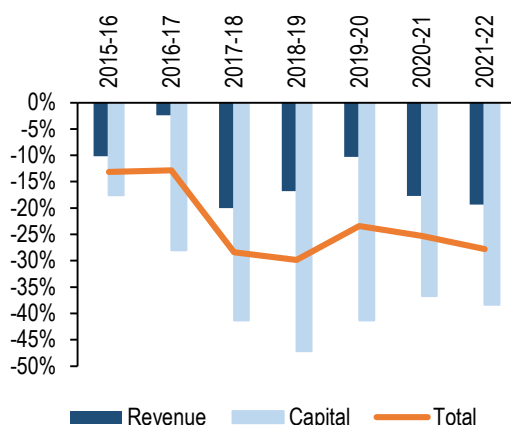
Note: Figures for 2022-23 are Budget Estimates and for 2021-22 are Revised Estimates. Sources: Union Budget documents (various years); PRS.

Defence expenditure as a percentage of GDP declined from 2.3% in 2012-13 to 2% in 2022-23. The Standing Committee on Defence (2018) had recommended that the Ministry of Defence should be allocated a fixed budget of about 3% of GDP to ensure adequate preparedness of the armed forces.²

Budget allocation falls short of resource projection by armed forces

Every year the budget provides a certain amount of funds for the armed forces. This amount is allocated after determining the various needs of the forces such as acquisition of weaponry and payment of salaries and pensions. Figure 2 shows the shortfall between the amount allocated to the armed forces as compared to the projected need for funds over the last seven financial years. As can be seen in Figure 2, in all the years since 2015-16 the funds allocated to the armed forces in the budget was less than what was initially projected by the armed forces.

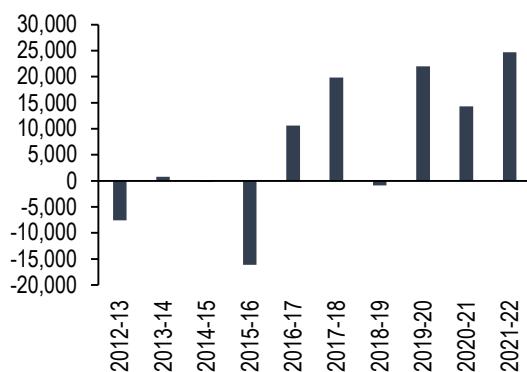
Figure 2: Shortfall in budget allocation versus projected needs



Sources: 20th Report, Demands for Grants, Standing Committee on Defence; PRS.

The shortfall (in percentage) is higher for capital expenditure than for revenue expenditure. In 2021-22, while the projected funds needed for all the three forces was estimated at Rs 4,49,508 crore, the budget allocated a sum of Rs 3,24,658 crore (28% shortfall). The shortfall for revenue expenditure and capital expenditure was 19% and 38% respectively.

Figure 3: Gap between actual expenditure and budget estimate of Ministry of Defence (in Rs crore)



Note: Figures for 2021-22 are based on revised estimates. Sources: Union Budget documents (various years); PRS.

Note that since 2016-17, the actual expenditure incurred by the Ministry has exceeded the budget

allocations in all years, except in 2018-19. This could be due to lesser allocations made for the Ministry at the budget estimate stage as compared to its projections. In 2021-22, the actual expenditure by the Ministry is estimated to exceed the budget estimate by Rs 24,689 crore (increase of 5.2% over budget allocations).

In a memorandum submitted to the 15th Finance Commission, the Ministry of Defence sought adequate funding through alternate sources for meeting its increasing requirements.³ The Ministry had pointed out that budgetary allocations have declined over the years and are inadequate to fund large defence acquisitions.³ For the period 2021-26, the Ministry estimated to receive Rs 9.01 lakh crore for capital outlay against the defence plan projection of Rs 17.46 lakh crore (48% shortfall).³ It was highlighted by the Ministry that consistent shortfalls in the defence budget over a long period has led to serious capability gaps.³ This has compromised the operational preparedness of the three services. Lack of adequate funds has forced the use of ad-hoc mechanisms such as postponing procurements and delaying payments.³

The 15th Finance Commission recommended that the central government may constitute Modernisation Fund for Defence and Internal Security (MFDIS) to bridge the gap between projected budgetary requirements and budget allocation.³ This fund will be non-lapsable. Its proceeds will be utilised for: (i) capital investment for modernisation of defence services, (ii) capital investment and modernisation of central armed police forces and state police forces. It was proposed that the fund will have four specific sources of incremental funding: (i) transfers from Consolidated Fund of India, (ii) disinvestment proceeds of defence public sector enterprises, (iii) proceeds from monetisation of surplus defence land, and (iv) proceeds of receipts from defence land likely to be transferred to state governments and for public projects in future.³ The Finance Commission estimated the indicative size of the fund at Rs 2,38,354 crore over 2021-26.³

The Standing Committee on Defence (2017) noted that creation of a non-lapsable defence capital fund account is an imperative need for improving operational preparedness of the armed forces.⁴ Creating such a fund would ensure that procurement of equipment and ammunition is not delayed due to lack of money.⁴ The Ministry of Finance had not agreed to creation of such a non-lapsable fund.⁵ According to the Ministry of Finance, the amount available in the non-lapsable fund will not be available to the Ministry of Defence automatically as it requires sanction from the Parliament.⁵

The Standing Committee on Defence (2021) was informed that a draft Cabinet note for Non-Lapsable Defence Modernisation Fund is under

consideration.⁶ The Committee recommended that the Ministry of Defence should expedite the constitution of the non-lapsable fund.⁶ The fund may be used exclusively for the procurement of critical defence assets at critical times.⁶ According to media reports, the Ministry of Finance has rejected the funding pattern of the fund as recommended by the 15th Finance Commission.⁷ It is exploring new means of funding as it is of the opinion that putting money directly in a non-lapsable fund is against good parliamentary practice.⁷

Composition of defence budget

In 2022-23, the allocation made to the Ministry is 4.4% higher as compared to the revised estimate of 2021-22. This is broadly in line with the 4.6% growth in overall central government expenditure in 2022-23. Capital outlay is estimated to see the highest increase of 10% followed by 8% for salaries and 2% for pensions.

Expenditure on salaries and pensions forms the largest portion of the defence budget (Rs 2,83,130 crore which is 54% of the defence budget). Capital outlay of Rs 1,44,304 crore, forms 27% of the defence budget. The remaining allocation is towards stores (maintenance of equipment), border roads, research, and administrative expenses.

Table 2: Defence budget allocation (in Rs crore)

Major Head	Actuals 2020-21	RE 2021-22	BE 2022-23	% change 2021-22 RE to 2022-23 BE
Salaries	1,34,091	1,50,855	1,63,453	8%
Capital Outlay	1,31,803	1,31,350	1,44,304	10%
Pensions	1,28,066	1,16,878	1,19,696	2%
Stores	48,837	46,968	40,561	-14%
Other Expenses	42,884	56,832	57,152	1%
Total	4,85,681	5,02,884	5,25,166	4%

Note: Salaries, pensions and capital outlay are of the three services. Salaries include salary for civilians, auxiliary forces, Rashtriya Rifles, Jammu and Kashmir Light Infantry and Coast Guard. Pensions include rewards. Capital outlay includes capital expenses on border roads and coast guard. Stores includes ammunition, repairs and spares. Others include administration expenses, expense on research and development and housing. RE is revised estimate and BE is budget estimate.

Sources: Expenditure Budget, Union Budget 2022-23; PRS.

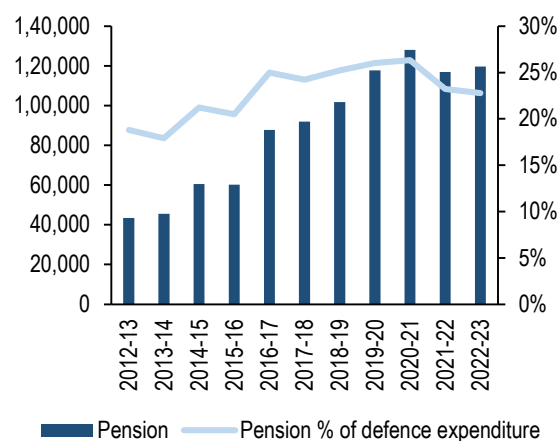
Decrease in share of pensions

Defence pensions provide for pensionary charges for retired Defence personnel of the three services (including civilian employees) and also employees of Ordnance Factories. It covers payment of service pension, gratuity, family pension, disability pension, commuted value of pension and leave encashment.

Expenditure on defence pension has grown at an annual average rate of 10.7% between 2012-13 and 2022-23. This is higher than the average annual

growth of the defence budget at 8.6%. The share of pension in the defence budget increased from 19% in 2012-13 to 26% in 2019-20. It has since fallen to 23% in 2021-22 and 2022-23. In the budget for 2022-23, the expenditure on defence pension is estimated to be Rs 1,19,696 crore which is 2% higher than the revised estimate of Rs 1,16,878 crore in 2021-22.

Figure 4: Expenditure on pensions (2012-13 to 2022-23) (in Rs crore)



Note: Figures for 2021-22 are Revised Estimates and 2022-23 are Budget Estimates.

Sources: Union Budget documents (various years); PRS.

In November 2015, the government decided to implement One Rank One Pension (OROP) with benefits effective from July 1, 2014.⁸ Under this framework, soldiers of the same rank who have retired after serving for the same length of service will receive the same pension.⁸ This applies irrespective of the date and year of their retirement. A total of Rs 10,795 crore has been disbursed as arrears to 20,60,220 pensioners/family pensioners of defence forces on account of implementation of OROP.⁸ The annual recurring expenditure for OROP is about Rs 7,123 crore. Total expenditure under the scheme for six years starting from July 1, 2014 is over Rs 42,740 crore.⁸

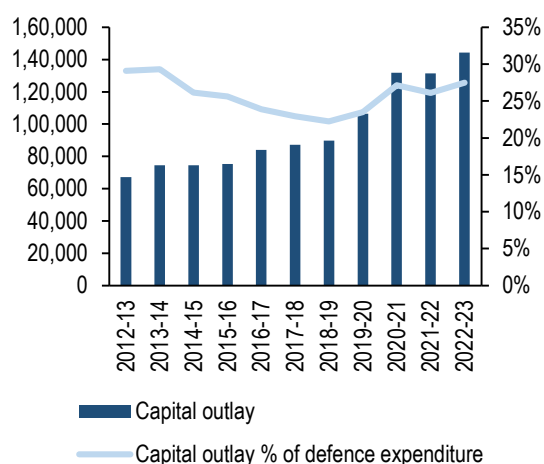
The Standing Committee on Defence (2021) noted that the allocation to defence pensions at the budget estimate stage reduced from Rs 1,33,825 crore in 2020-21 to Rs 1,15,850 crore in 2021-22.⁹ The Committee was informed that this was due to: (i) liquidation of previous year's carry over pension liabilities and (ii) freezing of dearness allowance (DA) by the central government for a certain time period due to COVID-19 pandemic.⁹ The 15th Finance Commission recommended that the Ministry should take steps to reduce salaries and pension liabilities.³ The Ministry has been examining various reforms in defence pension including: (i) bringing service personnel currently under the old pension scheme into the New Pension Scheme, (ii) increasing retirement age of personnel

below officer ranks, and (iii) transfer of retired personnel to other services.

Marginal increase in share of capital outlay

Capital outlay for defence includes expenditure on construction work, machinery, and equipment such as tanks, naval vessels, and aircrafts. Since 2012-13, the share of defence budget spent on capital outlay has declined. It was 29% in 2012-13 and declined to 24% in 2019-20. In 2020-21, share of capital outlay in the defence budget increased to 27%. In 2022-23, it is again estimated to be 27%. Note that between 2012-13 and 2018-19 the average annual growth rate of capital outlay was 5% while between 2019-20 and 2022-23 it was 11%.

Figure 5: Expenditure on capital outlay (2012-13 to 2022-23) (in Rs crore)



Note: Figures for 2021-22 are Revised Estimates and 2022-23 are Budget Estimates.

Sources: Union Budget documents (various years); PRS.

The Standing Committee on Defence (2021) noted that the ratio of revenue to capital outlay in case of the army is at 80:20 which is way short of the ideal ratio of 60:40.⁶ With respect to the navy and air force, this ratio is near to the ideal level of 60:40. The Committee recommended that measures should be taken to bridge the gap between the current and the ideal ratio for the army and other services.⁶

Table 3: Capital outlay on three armed forces and coast guard (in Rs crore)

Forces	Actuals 2020-21	BE 2021-22	RE 2021-22	BE 2022-23
Army	26,321	36,532	25,377	32,115
Navy	41,667	33,254	46,022	47,591
Air Force	58,208	53,215	53,215	56,852
Coast Guard	2,503	2,650	3,236	4,246
Total	1,28,699	1,25,651	1,27,850	1,40,804

Note: Capital outlay on Army and Air Force includes assistance for prototype development. BE is budget estimate and RE is revised estimate.

Sources: Expenditure Budget, Union Budget 2022-23; PRS.

Table 3 shows the amount of capital outlay of the three armed forces and coast guard. The Army saw a 31% decline in its capital outlay budget for 2021-22 at the revised estimate stage as compared to the budget estimate stage. For Navy and Coast Guard, funds for capital outlay increased 38% and 22% respectively between the budget estimate and revised estimate of 2021-22. In 2022-23, the capital outlay of Coast Guard is expected to increase 31% over the revised estimate of 2021-22. This is followed by the Army which is estimated to see an increase of 27% in its capital outlay budget.

Committed liabilities

Note that capital acquisition of the armed forces consists of two components: (i) committed liabilities, and (ii) new schemes. Committed liabilities are payments anticipated during a financial year in respect of contracts concluded in previous years (as acquisition is a complex process involving long gestation periods). New schemes include new projects which are at various stages of approval and are likely to be implemented in future.

Table 4: Committed liabilities and modernisation budget (in Rs crore)

Year	Committed liabilities	Budget allocation	Shortfall (in %)
2016-17	73,553	62,619	15%
2017-18	91,382	68,965	25%
2018-19	1,10,044	73,883	33%
2019-20	1,13,667	80,959	29%

Note: Figures for committed liabilities have not been publicly disclosed for 2020-21 and 2021-22.

Sources: 3rd Report, Capital Outlay on Defence Services, Procurement Policy and Defence Planning, Standing Committee on Defence, December 2019; PRS.

The Standing Committee on Defence (2019) expressed concern over the shortage in allocation to meet committed liabilities expenditure.¹⁰ The Committee observed that inadequate allocation for committed liabilities could lead to default on contractual obligations.¹⁰ It found the shortage in allocation to cover such expenditure as baffing and observed that if India were to default on payments, it will not go down well in international markets.¹⁰

The Standing Committee on Defence (2021) noted that despite earlier recommendations to create a dedicated fund for committed liabilities and new schemes, there has been no progress on the same.⁶ It again urged the Ministry of Defence to create a dedicated head for committed liabilities and new schemes from next budget onwards. This would ensure that there are no difficulties in meeting the payment deadlines for purchases that have already been committed.⁶ The Standing Committee on Defence (2021) was earlier informed by the government that both committed liabilities and new schemes are included in capital acquisition segment of capital budget.¹¹ Allocations under committed

liabilities and new schemes are dependent on ceilings received from the Ministry of Finance.¹¹

Analysis of the three armed forces

This section analyses the budget of the three armed forces, as well as issues related to their operational preparedness and modernisation.

In 2022-23, the total allocation of the three forces (including pensions) is Rs 5,25,166 crore which is 94% of the total defence budget. Out of this, allocation for Army accounts for 58% of the defence budget followed by the Air Force at 19% and Navy at 16%. The expenditure on Army, Navy, and Air Force is in the ratio 3.5:1:1.2. The Army has the highest pension obligations. Excluding pensions (which is a cost for former staff and does not contribute to present or future defence preparedness), the expenditure of Army, Navy, and Air Force are in the ratio 2.5:1:1.1. The table below shows the defence budget allocation amongst the three forces.

Table 5: Defence budget allocation (in Rs crore)

Major Head	Actuals 2020-21	RE 2021-22	BE 2022-23	Share of Budget
Army	2,84,143	2,90,673	3,06,055	58%
Navy	75,779	81,747	86,252	16%
Air Force	1,01,673	97,930	1,00,650	19%
Other	24,086	32,534	32,210	6%
Total	4,85,681	5,02,884	5,25,166	-

Note: Expenditure for Army includes expense on Border Roads Organisation, and Jammu and Kashmir Light Infantry. Expenditure for Navy includes expense on Coast Guard Organisation. RE is revised estimate and BE is budget estimate. Sources: Expenditure Budget, Union Budget 2022-23; PRS.

Composition of service budgets

Army

Table 6: Composition of Army budget (2022-23) (in Rs crore)

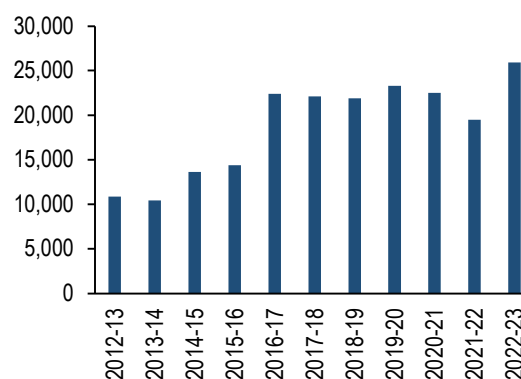
Head	Amount Allocated	% of service budget
Salaries	1,27,693	42%
Pensions	1,02,808	34%
Modernisation	25,909	8%
Maintenance	20,383	7%
Others	29,262	10%
Total	3,06,055	100%

Note: Salaries include salary for civilians, auxiliary forces, Rashtriya Rifles, Jammu and Kashmir Light Infantry. Modernisation funds for the Army is calculated from the following heads of the capital outlay: (i) Aircraft and Aeroengine, (ii) Heavy and Medium Vehicles, (iii) Other Equipment, (iv) Rolling Stock, (v) Rashtriya Rifles, and (vi) assistance for prototype development. Sources: Union Budget 2022-23; PRS.

The Army is the largest of the three forces, both in terms of its budget as well as the number of personnel. In 2022-23, Rs 3,06,055 crore has been allocated for the Army. This includes Rs 2,30,501 crore for salaries and pensions which is 76% of the Army's budget. Note that as of January 1, 2019, the Army has an authorised strength of 12.7 lakh personnel.¹² Significant expenditure on salaries and pensions, leaves only 8% of the Army's budget (Rs 25,909 crore) for modernisation. Table 6 provides the composition of the Army's budget for 2022-23.

Modernisation involves acquisition of state-of-the-art technologies and weapons systems to upgrade and augment defence capabilities of the forces. Figure 6 shows the expenditure on modernisation of the Army over the last 10 years. Between 2012-13 and 2022-23, funds for modernisation of the army have increased at an annual average rate of 9%. Note that between 2012-13 and 2016-17, the expenditure on modernisation increased at an annual average rate of 20% while it increased at only 2% between 2016-17 and 2022-23. In 2022-23, Army's modernisation expenditure is estimated to increase by 33% over the revised estimate of 2021-22.

Figure 6: Expenditure on modernisation of Army (in Rs crore)



Note: Figures for 2021-22 are Revised Estimates and for 2022-23 are Budget Estimates.

Sources: Union Budget documents (various years); PRS.

The Standing Committee on Defence (2018) has noted that modern armed forces should have one-third of its equipment in the vintage category, one-third in the current category, and one-third in the state-of-the-art category.¹³ However, Indian Army had 68% of its equipment in the vintage category, 24% in the current category, and 8% in the state-of-the-art category.¹³ The Committee also noted that over the years, the Army has accumulated a substantial deficiency of weapons, stores and ammunition. It found that adequate attention has been lacking with respect to both policy and budget for modernising the aging armoury.¹³

Navy

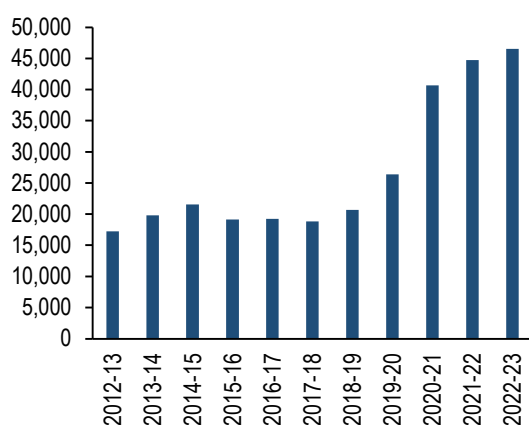
The Navy has been allocated Rs 86,252 crore (including pensions) in 2022-23. Modernisation comprises 54% (Rs 46,518 crore) of Navy's budget allocation. Table 7 provides the composition of the Navy's budget for 2022-23. The expenditure on naval fleet is expected to increase to Rs 24,717 crore in the revised estimate of 2021-22 from Rs 16,000 crore at the budget estimate stage (54% increase). In July 2021, the Ministry of Defence issued a request for proposal for acquiring six conventional submarines under Project 75 (India).¹⁴ The project is estimated to cost over Rs 40,000 crore.¹⁴

Table 7: Composition of Navy budget (2022-23) (in Rs crore)

Head	Amount Allocated	% of service budget
Modernisation	46,518	54%
Salaries	15,722	18%
Maintenance	7,610	9%
Pensions	5,944	7%
Others	10,458	12%
Total	86,252	100%

Note: Salaries include salary for civilians and coast guard. Modernisation funds for the Navy is calculated from the following heads of the capital outlay: (i) Aircraft and Aeroengine, (ii) Heavy and Medium Vehicles, (iii) Other Equipment, (iv) Joint Staff, (v) Naval Fleet, and (vi) Naval Dockyards and Projects. Sources: Union Budget 2022-23; PRS.

Figure 7: Expenditure on modernisation of Navy (in Rs crore)



Note: Figures for 2021-22 are Revised Estimates and for 2022-23 are Budget Estimates.

Sources: Union Budget documents (various years); PRS.

Between 2012-13 and 2022-23, funds for modernisation of the Navy have increased at an annual average rate of 10%. Note that between 2012-13 and 2018-19, Navy's modernisation expenditure increased an average annual rate of only 3% while between 2018-19 and 2022-23, it increased at a significantly higher rate of 23%. In 2022-23, Navy's modernisation expenditure is expected to increase by 4% over the revised estimate of 2021-22. The modernisation expenditure of the Navy as a percentage of total defence expenditure

decreased from 7% in 2012-13 to 5% in 2018-19. It has since recovered to reach 9% in 2021-22 and 2022-23.

Air Force

The Indian Air Force (IAF) has been allocated Rs 1,00,650 crore for the year 2022-23 (including pensions for retired personnel). Modernisation comprises 52% (Rs 52,750 crore) of the total budget of the IAF.

Table 8: Composition of Air Force budget (2022-23) (in Rs crore)

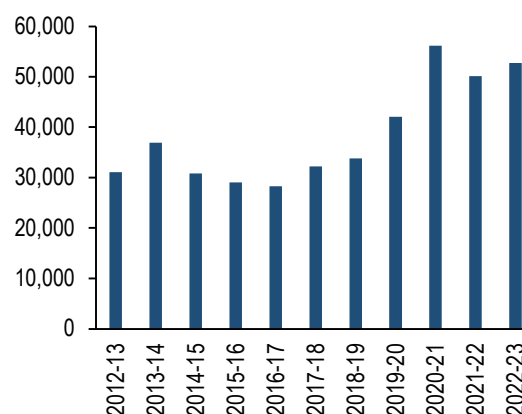
Head	Amount Allocated	% of service budget
Modernisation	52,750	52%
Salaries	20,038	20%
Pensions	10,925	11%
Maintenance	9,679	10%
Others	7,258	7%
Total	1,00,650	100%

Note: Salaries include salary for civilians. Modernisation funds for the Air Force is calculated from the following heads of the capital outlay: (i) Aircraft and Aeroengine, (ii) Heavy and Medium Vehicles, (iii) Other Equipment, and (iv) assistance for prototype development.

Source: Union Budget 2022-23; PRS.

Figure 8 shows the expenditure on modernisation of IAF over the last 10 years. Funds for modernisation have grown at an annual average rate of 5% between 2012-13 and 2022-23. Note that this is the minimum among all the three forces. Between 2012-13 and 2018-19, the average annual rate of growth of IAF's modernisation funds was only 1% while between 2018-19 and 2022-23 it was 12%. In 2022-23, IAF's modernisation budget is expected to increase by 5% over the revised estimates of 2021-22.

Figure 8: Expenditure on modernisation of IAF (in Rs crore)



Note: Figures for 2021-22 are Revised Estimates and for 2022-23 are Budget Estimates.

Sources: Union Budget documents (various years); PRS.

The CAG has raised issues in relation to the capital acquisition process of the IAF.¹⁵ In its report (2019), the CAG examined 11 contracts of capital acquisition signed between 2012-13 and 2017-18,

with a total value of approximately Rs 95,000 crore. It found that the current acquisition system was unlikely to support the operational preparedness of the IAF and recommended that the Ministry of Defence undertake structural reforms of the entire acquisition process.¹⁵

The Estimates Committee (2018) has noted that there should be 70% serviceability of aircrafts since aircrafts have to undergo standard maintenance checks.¹⁶ However, as of November 2015, the serviceability of aircrafts was 60%.¹⁶ Serviceability measures the number of aircrafts that are mission capable at a point in time.

Defence Procurement

Delays in defence procurement

Defence procurement refers to the acquisition of defence equipment, systems and platforms which is undertaken by the Ministry of Defence, and the three armed forces. In 2016, the government released the Defence Procurement Procedure (DPP) which has been revised and replaced by the Defence Acquisition Procedure (DAP), 2020.^{17,18} The Committee on Estimates (2018) noted that procurement and acquisition of defence hardware is a long-drawn process which involves a large number of stakeholders.¹⁶

Issues of coordination between such large number of stakeholders sometimes lead to avoidable delays.¹⁶ For instance, the Comptroller and Auditor General (CAG) of India observed that in case of procurement of equipment for the air force, it took three to five years to sign the contract, and another three to five years to complete the delivery.¹⁵ The Committee on Estimates observed that such delays adversely impact the defence preparedness of India.¹⁶ It recommended creating an integrated institutional mechanism to reduce the delays in the procurement process.¹⁶

Indigenisation

In order to promote indigenisation and domestic production of defence equipment, the government has notified 209 items which will be procured from indigenous sources.^{19,20} These items, notified through two separate lists in August 2020 and May 2021, are placed under import embargo in a staggered manner. In August 2020, the government estimated that between April 2015 and August 2020, the armed forces had spent close to Rs 3.5 lakh crore on the items that were put under import embargo.¹⁹ It estimated that contracts worth around four lakh crore rupees will be placed with the domestic industry within the next five to seven years.¹⁹

Table 9 shows the procurement of defence equipment by the three armed services imported from foreign vendors and acquired from indigenous sources. Between 2015-16 and 2018-19, the

percentage of defence equipment acquired from foreign vendors increased to up to 50%. It has reduced since then. In the first six months of 2021-22, the armed forces had spent Rs 62,975 crore on procurement of defence equipment out of which 34% of the amount has been spent on procurement from foreign sources.²¹

Table 9: Procurement from domestic and foreign sources (in Rs crore)

Year	Total Procurement	Indian Vendors	Foreign Vendors	% Foreign vendors
2015-16	61,914	39,752	22,163	36%
2016-17	69,080	40,545	28,534	41%
2017-18	72,437	41,892	30,545	42%
2018-19	75,491	37,728	37,764	50%
2019-20	96,438	54,759	41,679	43%
2020-21	75,283	50,898	24,385	32%

Note: Figures for 2020-21 are up to January 2021.

Sources: 21st Report, Demands for Grants (2021-22), Standing Committee on Defence; PRS.

The Standing Committee on Defence (2021) had expressed concern on the increasing import of arms and equipment.⁶ In 2020, India was the largest importer of arms according to the data compiled by SIPRI.²² Between 2016-17 and 2019-20, out of a total 213 contracts, 90 contracts have been signed with foreign vendors for procurement of defence equipment.⁶ These 90 contracts were worth around Rs 1,76,569 crore.⁶

The Estimates Committee (2018) noted that dependence on foreign suppliers, especially for military hardware, leads to huge expenditure on import of defence equipment.¹⁶ It also makes India's security vulnerable as during emergency situation the supplier may not provide the required weapons or spare parts.¹⁶ The Committee also expressed concern that the indigenisation level in the defence sector is increasing at a very slow rate.¹⁶ The Committee emphasised that increasing local content in defence platforms and hardware will have a multiplier effect.¹⁶ This will create a strong manufacturing sector, generate substantial number of jobs, and save financial resources.¹⁶

Low capacity of domestic industry

A key variable that would help to determine the potential of indigenisation of defence procurement is the production capacity of the domestic industry. Table 10 shows the annual turnover of defence public sector undertakings (DPSUs), other public sector undertakings (PSUs), and private companies in the defence sector over the last few years. It also compares the total domestic production of defence

equipment to the overall budget for capital outlay of the armed forces.

Table 10: Total production versus capital outlay on defence services (in Rs crore)

Year	Private companies	Defence and other PSUs	Total Production	% Capital outlay budget
2017-18	15,347	63,473	78,820	90%
2018-19	17,350	63,770	81,120	90%
2019-20	15,894	62,676	78,570	74%
2020-21	17,292	67,375	84,667	64%

Note: Capital outlay includes Coast Guard Organisation and Border Roads Development Board.

Sources: Lok Sabha Unstarred Question No. 953, Ministry of Defence; Union Budget documents; PRS.

Note that after 2018-19, the share of total production by the domestic defence industry has fallen as a proportion of capital outlay for the armed forces. In 2020-21, total production by the domestic defence industry amounted to 64% of the overall budget for capital outlay. Decline in production of defence equipment by the domestic industry as a percentage of funds available for capital outlay with the armed services may increase the reliance of the armed forces on imports. The Standing Committee on Defence (2021) had recommended that steps should be taken so that ordnance factories, DPSUs, and private industries work in coordination.⁶ This will help to promote import substitution of defence products and expand the export potential of these entities.⁶

An Expert Committee (2015) noted that majority of defence material manufacture in India is in the public sector.²³ In 2020-21, private companies contributed to only 20% of the overall production of the domestic defence industry. This ratio has broadly remained the same since 2017-18. The Expert Committee recommended that the government should support the private defence sector on a long-term basis.²³ This would require both long-term projections and stable current orders along with hand holding in various stages of the procurement cycle.²³

With effect from October 1, 2021, the central government dissolved the Ordnance Factory Board (OFB) and transferred its operations to seven new DPSUs.²⁴ OFB was engaged in the production of arms, ammunitions, weapons, and defence equipment. It operated under the administrative control of Department of Defence Production in the Ministry of Defence. According to the government, this is expected to enhance the functional autonomy and efficiency of these entities.²⁵ The Ministry of Defence has set a target of achieving a turnover of Rs 1.75 lakh crore by 2024 for indigenous

manufacturing of aerospace and defence goods and services.²⁵ This target includes exports worth Rs 35,000 crore.²⁵

Defence Acquisition Procedure, 2020

The first DAP was promulgated in 2002 and has been revised periodically.²⁶ DAP 2020 has been applicable from October 1, 2020. It will remain in force till September 30, 2025 or till it is reviewed. It seeks to enhance indigenous content in the manufacturing of defence equipment.²⁶ DAP is applicable for the acquisition of capital goods and services.¹⁸ It also provides for leasing of assets as another category of acquisition which can substitute huge initial capital outlays with periodical rental payments.¹⁸

Categories of acquisition provided in DAP are:

- Buy (Indian-IDDM) refers to the acquisition of products from an Indian vendor that have been indigenously designed, developed and manufactured;
- Buy (Indian) refers to the acquisition of products from an Indian vendor which may not have been designed and developed indigenously;
- Buy and Make (Indian) refers to an initial acquisition of equipment from an Indian vendor who is in a tie-up with a foreign vendor, followed by indigenous production involving transfer of technology;
- Buy (Global-Manufacture in India) refers to a purchase from a foreign vendor which is followed by indigenous production of entire/part of equipment through the vendor's Indian subsidiary; and
- Buy (Global) refers to outright purchase of equipment from foreign or Indian vendors.¹⁸

Among the categories listed above, Buy (Indian-IDDM) is given the highest priority in procurement. This is followed by Buy (Indian) and Buy and Make (Indian).¹⁸

Table 11: Enhancement in indigenous content

Category	DPP-2016	DAP-2020
Buy (Indian-IDDM)	40% or more	50% or more
Buy (Indian)	40% or more	50% or more (for indigenous design)
Buy and Make (Indian)	50% or more of 'Make' part	50% or more of 'Make' part
Buy (Global-Manufacture in India)	-	50% or more
Buy (Global)	-	30% or more (for Indian vendor)

Note: Buy and Make category refers to an initial procurement of equipment from a foreign vendor, followed by transfer of technology.

Sources: Press Information Bureau; PRS.

Table 11 shows the increase in indigenous content in the different categories of acquisition. DAP has

increased the requirement for indigenous content in most of the categories of acquisition. Indigenous content is the percent of cost of such content in base contract price (total contract price without taxes and duties).¹⁸

DAP also provides for a separate mechanism for acquisition of systems designed and developed by Defence Research and Development Organisation (DRDO)/DPSU/OFB. Based on operational requirements, the procuring agency will identify equipment which can be designed and developed by DRDO, DPSUs, or OFBs. Such cases would then be categorised under Buy (Indian-IDD) for subsequent procurement.

Increase in FDI limit

In September 2020, the central government increased the limit for foreign direct investment (FDI) in defence sector from 49% to 74% under the automatic route.²⁷ FDI beyond 74% is permitted with government approval which may be given where FDI is likely to result in access to modern technology.²⁸ Since the increase in limit, an FDI inflow of Rs 186 crore has been reported in the defence sector.²⁹

Research and Development

Defence research is primarily carried out by DRDO. It is the research and development (R&D) wing of the Ministry of Defence. It is engaged in developing defence technologies such as aeronautics,

armaments, missiles, and engineering systems. The Standing Committee on Defence (2021) observed a steady drop in the research and development expenditure incurred by DRDO as a percentage of India's GDP.³⁰

Table 12: DRDO's research and development expenditure (in Rs crore)

Year	R&D Expenditure	% of GDP
2016-17	13,501	0.088%
2017-18	15,399	0.091%
2018-19	17,122	0.09%
2019-20	17,731	0.087%
2020-21	16,466	0.084%

Sources: 22nd Report, Demands for Grants (2021-22), Ordnance Factories, Defence Research and Development Organisation, Directorate General of Quality Assurance and National Cadet Corps, Standing Committee on Defence; PRS.

The Committee noted that the expenditure incurred on defence research and development has remained around 1% of GDP which is substantially less as compared to other developed nations.³⁰ The Committee recommended providing adequate allocations to DRDO so that it can scale up its research and development activities. There is a need to enhance the expenditure of DRDO as a percentage of GDP as well as a percentage of the total defence budget so that it can take up flagship projects for the design and development of weapon systems.³⁰

¹ "World military spending rises to almost \$2 trillion in 2020", Stockholm International Peace Research Institute, as accessed on January 10, 2022, <https://www.sipri.org/media/press-release/2021/world-military-spending-rises-almost-2-trillion-2020>.

² 40th Report: Demands for Grants (2018-19) General Defence Budget, Border Roads Organisation, Indian Coast Guard, Military Engineer Services, Directorate General Defence Estates, Defence Public Sector Undertakings, Welfare of Ex-Servicemen, Defence Pensions, Ex-Servicemen Contributory Health Scheme, Standing Committee on Defence, Lok Sabha, March 12, 2018, http://164.100.47.193/lsscommittee/Defence/16_Defence_40.pdf.

³ Chapter 11, Defence and Internal Security, Volume-I Main Report, 15th Finance Commission, October 2020

⁴ 32nd Report, Creation of Non-Lapsable Capital Fund Account, Instead of the Present System, Standing Committee on Defence, Lok Sabha, August 2017, http://164.100.47.193/lsscommittee/Defence/16_Defence_32.pdf.

⁵ 48th Report, Action Taken by the Government on the Observations/Recommendations contained in the Forty-second Report (16th Lok Sabha) on 'Demands for Grants of the Ministry of Defence for the year 2018-19 on Capital Outlay on Defence Services, Procurement Policy and Defence Planning (Demand No. 21), Standing Committee on Defence, Lok Sabha, January 2019, http://164.100.47.193/lsscommittee/Defence/16_Defence_48.pdf.

⁶ 21st Report, Demands for Grants (2021-22) Capital Outlay on Defence Services, Procurement Policy, Defence Planning and Married Accommodation Project, Standing Committee on Defence, Lok Sabha, March 2021, http://164.100.47.193/lsscommittee/Defence/17_Defence_21.pdf.

⁷ "FinMin eyes new ways to boost defence fund", Business Standard, February 7, 2022, [https://www.business-](https://www.business-standard.com/article/economy-policy/finance-ministry-eyes-new-ways-to-boost-non-lapsable-defence-fund-122020700004_1.html)

[standard.com/article/economy-policy/finance-ministry-eyes-new-ways-to-boost-non-lapsable-defence-fund-122020700004_1.html](https://www.business-standard.com/article/economy-policy/finance-ministry-eyes-new-ways-to-boost-non-lapsable-defence-fund-122020700004_1.html).

⁸ "One Rank One Pension (OROP)", Press Information Bureau, Ministry of Defence, November 3, 2021.

⁹ 19th Report, Demands for Grants (2021-22), General Defence Budget, Border Roads Organisation, Indian Coast Guard, Defence Estates Organisation, Defence Public Sector Undertakings, Canteen Stores Department, Welfare of Ex-Servicemen and Defence Pensions, Standing Committee on Defence, Lok Sabha, March 2021, http://164.100.47.193/lsscommittee/Defence/17_Defence_19.pdf.

¹⁰ 3rd Report, Demands for Grants (2019-20), Capital Outlay on Defence Services, Procurement Policy, Defence Planning and Married Accommodation Project, December 2019, http://164.100.47.193/lsscommittee/Defence/17_Defence_3.pdf.

¹¹ 18th Report, Action Taken by the Government on the Seventh Report (17th Lok Sabha) on 'Capital Outlay on Defence Services, Procurement Policy, Defence Planning and Married Accommodation Project (Demand No. 20)', Standing Committee on Defence, Lok Sabha, March 2021, http://164.100.47.193/lsscommittee/Defence/17_Defence_18.pdf.

¹² "Strength of Defence Forces", Press Information Bureau, Ministry of Defence, July 24, 2019.

¹³ 41st Report, Demands for Grants (2018-19) Army, Navy and Air Force, Standing Committee on Defence, Lok Sabha, March 2018,

http://164.100.47.193/lsscommittee/Defence/16_Defence_41.pdf.

¹⁴ "MoD issues RFP for construction of six P-75(I) submarines for Indian Navy", Press Information Bureau, Ministry of Defence, July 20, 2021.

¹⁵ Report No. 3 of 2019: Performance Audit Report of the Comptroller and Auditor General of India on Capital Acquisition

in Indian Air Force, Comptroller and Auditor General, February 13, 2019.

¹⁶ 29th Report: Preparedness of Armed Forces- Defence Production and Procurement, Committee on Estimates, July 25, 2018, http://164.100.47.193/lsscommittee/Estimates/16_Estimates_29.pdf.

¹⁷ Defence Procurement Procedure 2016, Ministry of Defence, July 2016, https://www.mod.gov.in/sites/default/files/dppm.pdf_0.pdf.

¹⁸ Defence Acquisition Procedure, 2020, Ministry of Defence, September 2020, https://www.mod.gov.in/sites/default/files/DAP2030new_0.pdf.

¹⁹ “MoD’s big push to Atmanirbhar Bharat initiative”, Press Information Bureau, Ministry of Defence, August 9, 2020.

²⁰ “MoD notifies ‘Second Positive Indigenisation List’ of 108 items to promote self-reliance & defence exports”, Press Information Bureau, Ministry of Defence, May 31, 2021.

²¹ Lok Sabha Unstarred Question No. 953, Ministry of Defence, December 3, 2021, <http://164.100.24.220/loksabhaquestions/annex/177/AU953.pdf>.

²² TIV of arms imports to the top 50 largest importers, 2020-2020, Stockholm International Peace Research Institute, as accessed on January 11, 2022, https://armstrade.sipri.org/armstrade/html/export_toplist.php.

²³ Report of Committee of Experts for Amendments to DPP 2013 Including Formulation of Policy Framework, July 2015, <https://www.mod.gov.in/sites/default/files/Reportddp.pdf>.

²⁴ CG-DL-E-01102021-230101, Ministry of Defence, October 1, 2021, <https://egazette.nic.in/WriteReadData/2021/230101.pdf>.

²⁵ “Seven new defence companies, carved out of OFB, dedicated to the Nation on the occasion of Vijaydashami”, Press Information Bureau, Ministry of Defence, October 15, 2021.

²⁶ “Raksha Mantri Shri Rajnath Singh unveils Defence Acquisition Procedure – 2020”, Press Information Bureau, Ministry of Defence, September 28, 2020.

²⁷ “Press Note No. 4 (2020 Series), reviewing Foreign Direct Investment (FDI) Policy in Defence Sector”, Press Information Bureau, Ministry of Commerce & Industry, September 18, 2020.

²⁸ “FDI in Defence Sector”, Press Information Bureau, Ministry of Defence, September 14, 2020.

²⁹ Starred Question No. 161, Rajya Sabha, December 13, 2021, <https://pqars.nic.in/annex/255/AS161.pdf>.

³⁰ 22nd Report, Demands for Grants (2021-22), Ordnance Factories, Defence Research and Development Organisation, Directorate General of Quality Assurance and National Cadet Corps, Standing Committee on Defence, Lok Sabha, March 2021, http://164.100.47.193/lsscommittee/Defence/17_Defence_22.pdf.

DISCLAIMER: This document is being furnished to you for your information. You may choose to reproduce or redistribute this report for non-commercial purposes in part or in full to any other person with due acknowledgement of PRS Legislative Research (“PRS”). The opinions expressed herein are entirely those of the author(s). PRS makes every effort to use reliable and comprehensive information, but PRS does not represent that the contents of the report are accurate or complete. PRS is an independent, not-for-profit group. This document has been prepared without regard to the objectives or opinions of those who may receive it.