

Demand for Grants 2020-21 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 ordnance factories and 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 analyses key issues affecting the three armed forces and other issues related to the defence sector.

Overview of finances

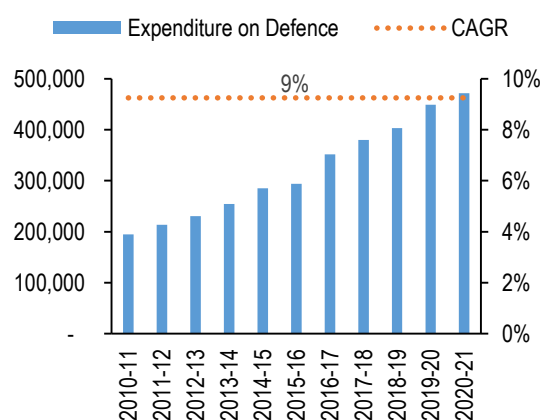
In 2020-21, the Ministry of Defence has been allocated Rs 4,71,378 crore. This includes expenditure for salaries of armed forces and civilians, pensions, modernisation of armed forces, production establishments, maintenance and research and development organisations.

The allocation to the Ministry of Defence is the highest allocation among all ministries of the central government. The expenditure on defence constitutes 15.5% of the central government's budget and 2.1% of India's estimated GDP for 2020-21.

Defence budget has decreased as a proportion of GDP over the years

Over the last 10 years (2010-11 to 2020-21), the budget of the Ministry of Defence has grown at an annual average rate of 9%. The year-wise budget of the Ministry is shown below in Figure 1.

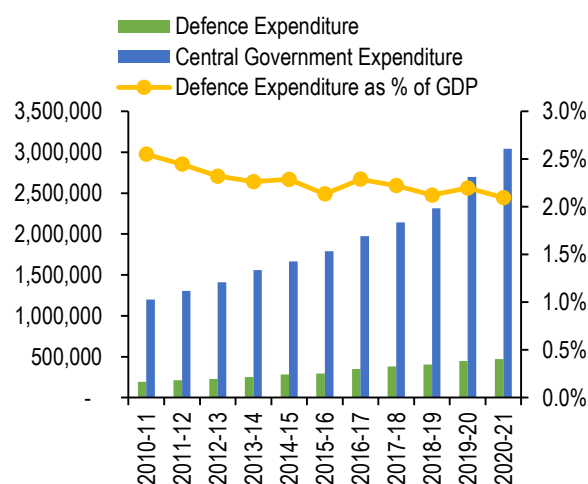
Figure 1: Budget of Ministry of Defence (2010-11 to 2020-21) (in Rs crore)



Sources: Union Budget Documents 2010-2020; PRS. Note: Figures for 2020-21 are Budget Estimates and for 2019-20 are Revised Estimates.

However, over the last 10 years, defence expenditure as a proportion of central government expenditure and GDP has decreased. In 2010-11, defence expenditure was 2.5% of GDP and 16.3% of central government expenditure, which has decreased to 2.1% of GDP and 15.5% of government expenditure, respectively, in 2020-21. 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.¹

Figure 2: Defence expenditure as a percentage of GDP and total central government expenditure (2010-11 to 2020-21) (in Rs crore)

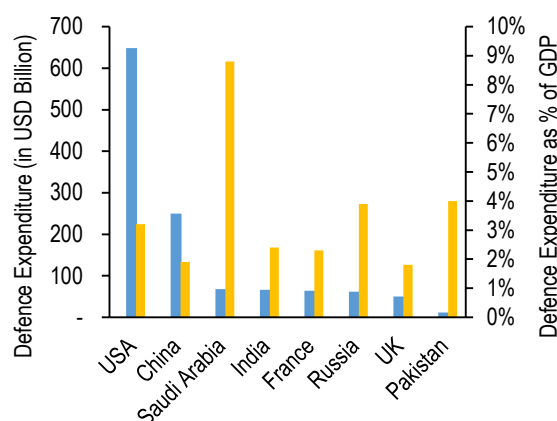


Sources: Union Budget 2010-20, Central Statistics Office; PRS. Note: Figures for 2020-21 are Budget Estimates and for 2019-20 are Revised Estimates.

India was the fourth-largest defence spender in the world in 2018

According to the Stockholm International Peace Research Institute (SIPRI), India was the fourth-largest defence spender in absolute terms in 2018 (after USA, China and Saudi Arabia).²

Figure 3 compares India's defence expenditure with the seven largest spenders in absolute terms and as a percentage of GDP. Countries such as USA and Saudi Arabia spent higher than India on defence, both in absolute terms as well as percentage of GDP. China spent lower in terms of percentage of GDP, but its absolute expenditure on defence was 3.8 times that of India.

Figure 3: International comparison of defence expenditure (2018) (in USD Billion)

Sources: "SIRPI Military Expenditure Database", Stockholm International Peace Research Institute, 2018; PRS.

Growth of 5% over last year's budget

The budget of Ministry of Defence is estimated to grow by 5% in 2020-21 over revised estimates of 2019-20. The increase is highest for defence pensions, which is expected to grow at 13.6%. Allocations on salaries have increased by 5.6% and allocation for the capital outlay component of the budget has increased by 1.4% over the revised estimates of 2019-20. Capital outlay includes expenditure on construction work, machinery, and equipment such as tanks, naval vessels, and aircrafts.

Table 1: Defence Budget Allocation (Rs crore)

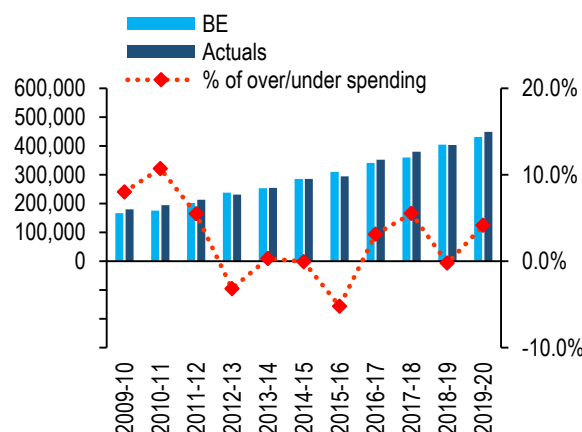
| Major Head | Actual 18-19 | Revised 19-20 | Budgeted 20-21 | % change (RE to BE) |
|----------------|-----------------|-----------------|-----------------|---------------------|
| Salaries | 1,29,836 | 1,34,810 | 1,42,292 | 5.6% |
| Capital Outlay | 89,783 | 1,05,727 | 1,07,233 | 1.4% |
| Pensions | 1,01,775 | 1,17,810 | 1,33,825 | 13.6% |
| Stores | 43,637 | 44,353 | 42,856 | -3.4% |
| Others | 38,427 | 46,119 | 45,172 | -2.1% |
| Total | 4,03,457 | 4,48,820 | 4,71,378 | 5.0% |

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 2020-21; PRS.

The Standing Committee (2019) had noted that the actual increase at the stage of revised estimates 2018-19 over actuals of 2017-18 was only 0.1% after adjusting inflation rate of 3.4% for the year.³ The Committee recommended that budgetary allocations for the Ministry should be appropriately increased to factor in inflation.

Actual expenditure has been higher than the budgeted expenditure over the last few years

Between 2009-10 and 2019-20, the actual expenditure was higher than the budgeted allocation for six years, which implies overspending by the Ministry of Defence for a few years. This was mostly due to overspending on defence pensions. In contrast, the actual expenditure was lower than the budgeted allocation for four years. Figure 4 below shows the actual and budgeted expenditure for the period between 2009-10 to 2019-20, and the percentage of over/underspending across these years.

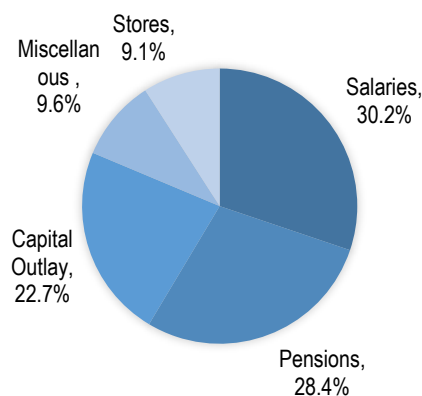
Figure 4: Budget estimates vs actual expenditure (2009-10 to 2019-20) (in Rs crore)

Sources: Union Budget 2009-2020; PRS.

Note: BE= Budget Estimates.

Changing composition of defence budget

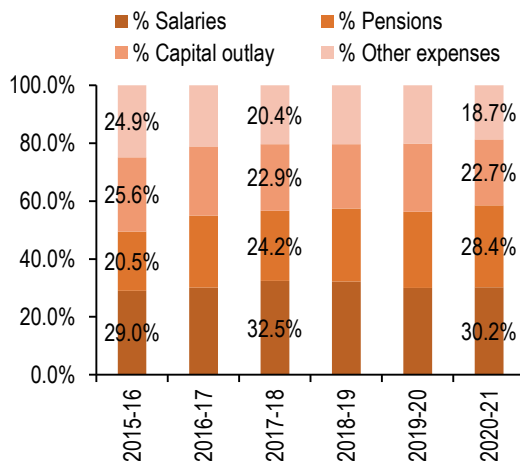
For 2020-21, expenditure on salaries form the largest portion of the defence budget (Rs 1,42,292 crore or 30% of the defence budget). This is followed by pensions (Rs 1,33,825 crore or 28% of defence budget) and expenditure on capital outlay (Rs 1,07,233 crore or 23% of defence budget). The remaining allocation is towards stores (maintenance of equipment) and other items such as border roads, and administrative expenses. Salaries and pensions together comprise 58.6% of the defence budget.

Figure 5: Composition of expenditure of ministry of defence for 2020-21 (in %)

Sources: Expenditure Budget, Union Budget 2020-21; PRS.

Over the last few years (2015-2020), there has been a shift in the composition of expenditure of the Ministry. For 2015-16, the expenditure on capital outlay and pensions was 26% and 21% of the defence budget, respectively. In contrast, in 2020-21, the expenditure on capital outlay has decreased to 23%, and the expenditure on pension has increased to 28% of the defence budget. This is illustrated in Figure 6 below.

Figure 6: Changing composition of the defence budget (2015-16 to 2020-21)

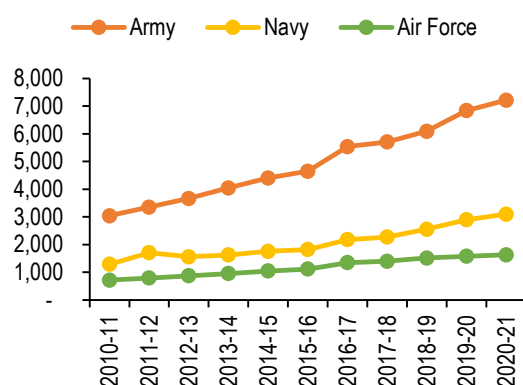


Sources: Union Budget 2015-20; PRS.

Note: Figures for 2019-20 are Revised Estimates, and for 2020-21 are Budget Estimates.

Salaries of civilian employees of the armed forces have also been increasing. The expenditure on salaries of civilians for the three armed forces between 2010-20 is shown in Figure 7. This has increased at an annual average rate of 9% for the three forces during this time period. As of March 2016, the Ministry of Defence employed around four lakh civilian employees.⁴

Figure 7: Expenditure on salaries of civilian employees (2010-11 to 2020-21) (in Rs crore)



Sources: Union Budget 2010-2020; PRS.

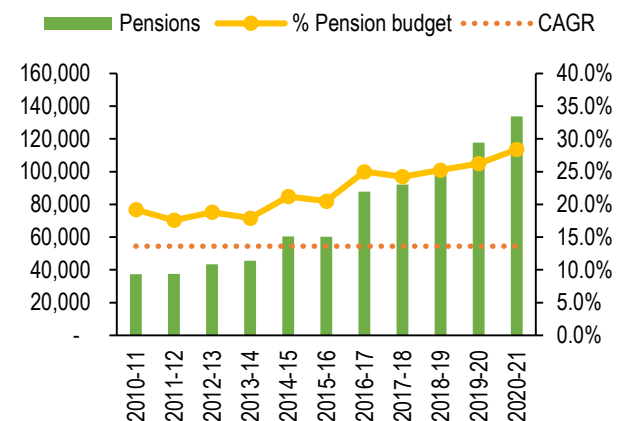
Note: Figures for 2019-20 are Revised Estimates, and for 2020-21 are Budget Estimates.

Proportion of expenditure on pensions increasing over the years

Defence pensions provides 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 pensions have grown at an average annual rate of 14% in the last 10 years. This is higher than the average annual growth rate of the defence budget (9%). Figure 8 shows the expenditure on defence pensions between 2010-11 to 2020-21 and the pension budget as a percentage of the defence budget.

Figure 8: Expenditure on defence pensions (2010-11 to 2020-21) (in Rs crore)



Sources: Union Budget 2010-20; PRS.

Note: Figures for 2019-20 are Revised Estimates, and for 2020-21 are Budget Estimates.

The Standing Committee (December 2019) noted that while the budget in defence services estimates (defence budget excluding pensions and administrative expenses) has doubled in the past decade, pension has increased thrice in amount.³ It noted that the defence pension liabilities will continue to increase exponentially every year due to increase in number of retirees, amount of dearness relief, gratuity, and other retirement benefits. The Committee observed that this increasing pension bill is a cause of concern.

As of April 2016, there were around 25 lakh defence pensioners.⁵ The Standing Committee on Defence (January 2019) noted that the percentage of funds for pensions is bound to rise since approximately 60,000 personnel retire every year.⁶

The Committee noted that this reduces the funds available for modernisation of the armed forces. It stated that the government could reduce the pension bill by introducing some other pension scheme or assured jobs on early retirement.

In November 2015, a decision was taken to implement One Rank One Pension (OROP) for armed forces personnel. This implies that a uniform pension will be paid for defence personnel retiring at

the same rank, irrespective of their date of retirement. It aims at bridging the gap between the rates of pension of current and past pensioners at periodic intervals.

Table 2 notes the amount disbursed on account of the implementation of OROP. The scheme had a total of 65,87,221 beneficiaries till May 2018.³

Table 2: Implementation of OROP: Amount disbursed (in Rs crore)

| Year | Amount disbursed (Rs crore) |
|--------------|-----------------------------|
| 2015-16 | 2,862 |
| 2016-17 | 5,371 |
| 2017-18 | 2,563 |
| Total | 10,795 |

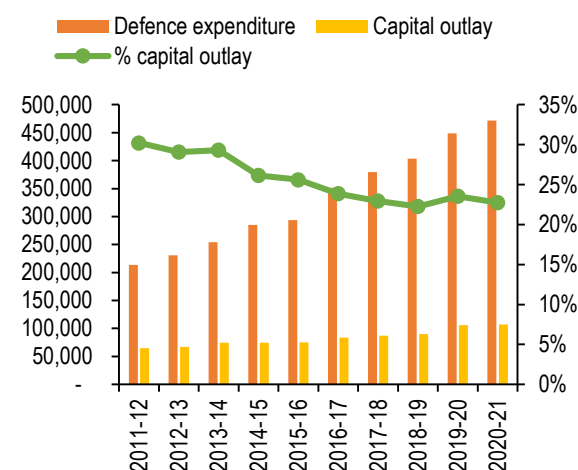
Sources: One Rank One Pension, Starred Question No. 68, June 26, 2019, Ministry of Defence, Lok Sabha; PRS.

Decreasing proportion of budget spent on capital outlay for armed forces

In 2020-21, total capital expenditure on the three forces has been budgeted at Rs 1,07,233 crore, which accounts for 23% of the budget of the Ministry. Capital outlay includes expenditure on purchasing defence equipment, weaponry, aircrafts, naval ships, land, and construction of roads and bridges in border areas.

Over the last 10 years, capital outlay as a percentage of total defence budget, has declined. The percentage was highest during 2011 at 30% of the total defence budget. Figure 9 shows the expenditure on capital outlay as percentage of defence expenditure over the last 10 years.

Figure 9: Capital outlay as percentage of defence expenditure (2011-12 to 2020-21) (in Rs crore)



Sources: Union Budgets 2011-2020; PRS.

Note: Figures for 2019-20 are Revised Estimates and 2020-21 are Budget Estimates.

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 complicated 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.

The Standing Committee on Defence (2019) analysed the allocation for modernisation of armed forces against the committed liabilities for the period between 2016-2019.⁷ It observed that the budget allocation for modernisation which should cover both committed liabilities and new schemes did not cover committed liabilities itself.

The Committee noted that inadequate allocation for committed liabilities could lead to default on contractual obligations. It recommended that the promised allocations should be disbursed for committed liabilities.

Table 3: Committed liabilities and modernisation budget (2016-17 to 2019-20) (in Rs crore)

| Year | Committed liabilities | Budget allocation | Shortfall (in %) |
|---------|-----------------------|-------------------|------------------|
| 2016-17 | 73,553 | 62,619 | 14.9% |
| 2017-18 | 91,382 | 68,965 | 24.5% |
| 2018-19 | 1,10,044 | 73,883 | 32.9% |
| 2019-20 | 1,13,667 | 80,959 | 28.8% |

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

Given the long-term nature of defence acquisition, the Standing Committee on Defence (2017) had recommended creation of a Non-Lapsable Capital Fund Account for defence modernisation.⁸ According to the Committee, this would ensure that money allocated for a particular item is spent on the specific item only.

However, the Ministry of Finance has objected to the creation of such a fund on various grounds including that balances in the non-lapsable fund would not be available to the Ministry of Defence automatically, as it would require Parliament's sanction.⁹

Analysis of the Forces

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

In 2020-21, the total allocation to the three forces (including pensions) is Rs 4,45,483 crore (94% of the total defence budget). The rest of the allocation is towards research and development and defence services ordnance factories. Nearly 63% of the defence budget is allocated for the Army. 18% of the budget is allocated for the Air Force, and 13% for the Navy. Table 4 details the defence budget allocation amongst the three forces, and towards the other and research and development.

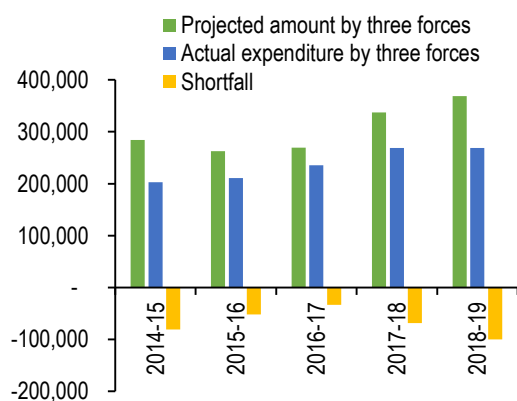
Table 4: Budget of defence services (in Rs Crore)

| Major Head | RE 19-20 | BE 20-21 | % change (RE to BE) | % of BE 20-21 |
|--------------|-----------------|-----------------|---------------------|---------------|
| Army | 2,77,093 | 2,97,035 | 7.2% | 63.0% |
| Navy | 60,882 | 61,890 | 1.7% | 13.1% |
| Air Force | 86,812 | 86,558 | -0.3% | 18.4% |
| Others | 24,033 | 25,896 | 7.8% | 5.5% |
| Total | 4,48,820 | 4,71,378 | 5.0% | |

Note: The above includes allocation for defence pensions and expense on Border Roads Organisation and Coast Guard Organisation. RE is revised estimate and BE is budget estimate. Sources: Expenditure Budget, Union Budget 2020-21; PRS.

Actual expenditure has been less than the projected amount by the defence forces

The expenditure on defence by the three armed forces has been significantly lower than the amount projected by the three services. For instance, in 2016-17, while the forces projected a required expenditure of Rs 2,69,243 crore, the actual expenditure during the year was Rs 2,35,769 crore (a shortfall of 12%). Figure 10 shows the difference (shortfall) between the amounts projected by the three forces and the actual expenditure between 2014-15 and 2019-20. Note that there has been a consistent shortfall ranging from 10% -30%. The average shortfall was 22% during these years.

Figure 10: Shortfall between amount projected by the armed forces and actual expenditure (2014-15 to 2019-20) (in Rs crore)

Note: Expenditure for 2019-20 is budget estimate and expenditure for 2018-19 is based on the revised estimate.

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

Army

The Army is the largest of the three forces, both in terms of budget as well as number of personnel. An amount of Rs 2,97,035 crore has been allocated for the Army in 2020-21. This includes Rs 1,13,257 crore for pensions (38% of army's expenditure) and Rs 1,11,294 for salaries. The table below provides the composition of the Army's budget for 2020-21.

Table 5: Composition of Army Budget (2020-21) (in Rs crore)

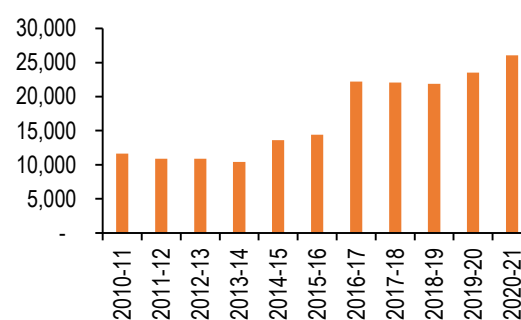
| Head | Amount allocated | % of service budget |
|---------------|------------------|---------------------|
| Pensions | 1,13,257 | 38.1% |
| Salaries | 1,11,294 | 37.5% |
| Modernisation | 26,069 | 8.8% |
| Maintenance | 18,328 | 6.2% |
| Others | 28,088 | 9.5% |
| Total | 2,97,035 | |

Sources: Union Budget 2020-21; PRS.

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, and (v) Rashtriya Rifles.

Nearly 76% of the Army's budget (Rs 2,24,551 crore) has been allocated for salaries and pensions of personnel. Note that as of July 2017, the Army has a sanctioned strength of 12.6 lakh personnel.¹⁰ Significant expenditure on salaries and pensions, leaves only 9% of the Army's budget (Rs 26,069 crore) for modernisation. Modernisation involves acquisition of state of the art technologies and weapons systems to upgrade and augment defence capabilities of the forces.

Figure 11 shows the expenditure on modernisation of the Army over the last 10 years. Funds for modernisation of the Army have grown at an annual average rate of 8% between 2010-11 and 2020-21.

Figure 11: Expenditure on modernisation of Army (2010 to 2020) (in Rs crore)

Sources: Union Budgets 2010-20; PRS.

Notes: Figures for 2019-20 are Revised Estimates and for 2020-21 are Budget Estimates.

The Standing Committee on Defence (2018) has noted that a 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.¹⁰

However, the current position of the Indian Army is that 68% of its equipment is in the vintage category, 24% in the current category, and only 8% in the state-of-the-art category. Further, the Committee noted that the Indian Army has a significant shortage of weapons and ammunition. According to the Committee, these shortages have persisted since adequate attention was lacking both in terms of

policy and budget for modernisation. The Committee stated that such a situation does not augur well in the context of a two-front war.¹⁰

Navy

The Navy has been allocated Rs 61,890 crore (including pensions) in 2020-21. Modernisation comprises 40% (Rs 24,598 crore) of the budget of the Navy. Table 6 below provides the composition of the Navy's budget for 2020-21.

Table 6: Composition of Navy Budget (2020-21) (in Rs crore)

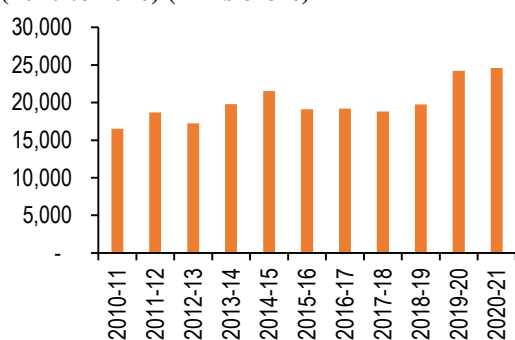
| Head | Amount allocated | % of service budget |
|---------------|------------------|---------------------|
| Modernisation | 24,598 | 40% |
| Salaries | 13,059 | 21% |
| Pensions | 7,234 | 12% |
| Maintenance | 6,960 | 11% |
| Others | 10,039 | 16% |
| Total | 61,890 | |

Sources: Union Budget 2020-21; PRS.

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 (viii) Naval Dockyards and Projects.

Note that the percentage of capital outlay for the Navy to the total defence budget has declined from 6.8% in 2015-16 to 5.6% in 2020-21. The Standing Committee on Defence (2018) has stated that this could lead to a delay in induction of critical capabilities and resultant cost-overruns.¹⁰ The Committee also observed that the number of ships and submarines was 138 and naval aircrafts was 235 in 2017, which decreased to 136 and 219 respectively in 2018.

Figure 12: Expenditure on modernisation of Navy (2010 to 2020) (in Rs crore)



Sources: Union Budgets 2010-20; PRS.

Notes: Figures for 2019-20 are Revised Estimates and for 2020-21 are Budget Estimates.

The Committee also observed delays in various projects of the Indian Navy.¹⁰ For example, Project 75 (which involved construction of six Scorpene Class submarines), had an initial delivery date of all submarines by December 2017. However, the likely date of delivery of all submarines is February 2022.

Since acquisition of new ships and submarines involves a lengthy procurement process, accident prevention is an important aspect of the organisational set up of the Navy.¹¹ In an audit report of 2017, the CAG observed that between 2007-08 and 2015-16, 38 naval accidents took place, which claimed the lives of 33 sailors.¹¹ Further, all naval accidents are to be investigated by a Board of Inquiry. The CAG found that only 21% of the total recommendations made by these Boards were implemented. It recommended that a mechanism should be put in place for implementing these recommendations in a time-bound manner.

Air Force

The Indian Air Force (IAF) has been allocated Rs 86,558 crore for the year 2020-21 (including pensions for the retired personnel). Rs 39,031 crore has been allotted for modernisation of the IAF. Table 7 shows the composition of the budget of the service for the year.

Table 7: Composition of Indian Air Force Budget (2020-21) (in Rs Crore)

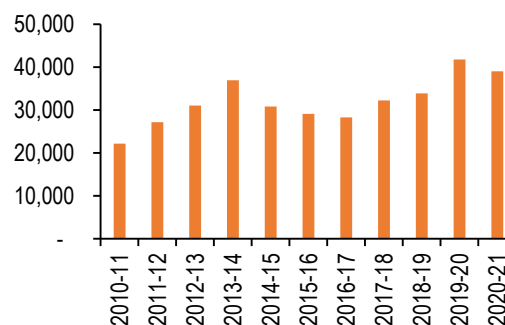
| Head | Amount allocated | % of service budget |
|---------------|------------------|---------------------|
| Modernisation | 39,031 | 45% |
| Salaries | 17,939 | 21% |
| Pensions | 13,313 | 15% |
| Maintenance | 9,110 | 11% |
| Others | 7,165 | 8% |
| Total | 86,558 | |

Source: Union Budget 2020-21; PRS.

Note: 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, and (iii) Other Equipment.

Modernisation comprises 45% (Rs 39,031 crore) of the total budget of the IAF. Note that this is a 6% decrease from the revised estimate (Rs 41,800 crore) for 2019-20 for modernisation of IAF. Figure 13 below shows the expenditure on modernisation of the IAF over the last ten years. Funds for modernisation have grown at an annual average rate of 6% between 2010-11 and 2020-21.

Figure 13: Expenditure on modernisation of IAF (2010-20) (in Rs crore)



Sources: Union Budgets 2010-20; PRS.

Notes: Figures for 2019-20 are Revised Estimates and for 2020-21 are Budget Estimates.

The CAG has raised issues in relation to the capital acquisition process of the IAF.¹² 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.¹²

One of the recommendations of the CAG related to the planning and tendering process. The acquisition of air assets starts with the formulation of user requirements known as the Air Staff Qualitative Requirements (ASQR). The CAG had recommended in 2007 that the ASQR should be stated in terms of functional parameters, which are measurable. However, it noted that instead of using functional parameters, the IAF made the ASQR exhaustive and included technical details. In this context, the CAG repeated its earlier recommendation that ASQR should be stated in terms of functional parameters. Further, it recommended that technical experts with knowledge of the systems being considered could be involved in the acquisition process.¹²

The Estimates Committee (2018) has noted that there should be 70% serviceability of aircrafts since aircrafts have to undergo standard maintenance checks.¹³ However, as of November 2015, the serviceability of aircrafts was 60%.

Chief of Defence Staff

The Union Cabinet approved the creation of the post of Chief of Defence Staff (CDS) in December 2019. The creation of post was first recommended by the report of the Group of Ministers on 'Reforming the National Security System' (2001) to provide single-point military advice to the government. The CDS will be the permanent chairman of the Chiefs of Staff Committee. Further, the CDS will also administer the three services and act as a military advisor to the Nuclear Command Authority.

Further, the cabinet approved creation of the Department of Military Affairs under the Ministry of Defence. The Department will deal with matters related to defence procurement, training and staffing for the services, and promoting use of indigenous equipment. This department will be headed by the CDS.

Issues 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. The Ministry released the Defence Procurement Procedure (DPP), 2016 in March 2016 which lays down detailed guidelines regulating defence procurement in India.¹⁴

Procurement of defence hardware is a long process, involving large number of stakeholders. Coordination issues between these stakeholders

sometimes results in delays.¹³ For example, in the case of procurement of equipment for the air force, the CAG found that it took three to five years to just sign the contract, and another three to five years to complete the delivery.¹²

The defence procurement executive is currently in the Ministry of Defence.¹⁵ An Expert Committee on Defence Procurement (2015) observed that a procurement organisation needs to have specialised knowledge of various fields including technology, commercial negotiations, cost estimations, and financial structures.¹⁵ Therefore, it recommended the creation of a separate defence procurement executive, with specialist wings and personnel, outside the formal structure of the Ministry of Defence. This executive would spearhead the procurement process, with the Ministry of Defence and Service Headquarters. Note that countries such as France and the United Kingdom have independent agencies responsible for defence procurement.¹⁵

Note that the government has setup a Committee to review the DPP 2016 and the Defence Procurement Manual 2009 to remove procedural bottlenecks, simplify procedures, hasten defence acquisition, and ensure greater participation from the industry.¹⁶

High dependence on imports

According to the Stockholm International Peace Research Institute, India was the fourth-largest importer of defence goods and services in 2018.² The Estimates Committee (2018) had stated that dependence on foreign suppliers for military hardware not only results in huge expenditure on imports, but makes national security vulnerable as suppliers may not provide weapons during emergency situations.¹³ Table 8 notes the total procurement from foreign and Indian vendors during 2014-15 to 2018-19.

Table 8: Total procurement from foreign and Indian vendors (2014-15 to 2018-19) (Rs crore)

| Year | Total procurement | Foreign vendors | Indian vendors | % Foreign vendors |
|---------|-------------------|-----------------|----------------|-------------------|
| 2014-15 | 65,860 | 25,981 | 39,879 | 39.4% |
| 2015-16 | 62,342 | 23,192 | 39,150 | 37.2% |
| 2016-17 | 69,150 | 27,278 | 41,872 | 39.4% |
| 2017-18 | 72,732 | 29,035 | 43,697 | 39.9% |
| 2018-19 | 75,921 | 36,957 | 38,964 | 48.7% |

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

An Expert Committee (Chair: Mr. Dhirendra Singh) was set up to suggest amendments to the Defence Procurement Procedure, to facilitate the 'Make in India' scheme in the defence sector.¹⁵ The Expert Committee recommended three models for defence procurement: (i) strategic partnership model, for projects that are of strategic importance (such as aircrafts or submarines), (ii) development partnership model, where quality is critical and the

vendor base is narrow, and (iii) competitive bidding process, where the vendor base is large and competition is feasible. Note that the DPP 2016, has a chapter on implementation of the Strategic Partnership Model.¹⁴

Further, the Draft Defence Production Policy, 2018 was released in April 2018.¹⁷ The draft policy aims to reduce India's current dependence on imports, and achieve self-reliance in development and manufacture of 13 categories of weapon systems, including fighter aircraft, warships, and missile systems by 2025. In order to further self-reliance in the defence sector, the government has allowed 100% FDI in the defence sector, with 49% under automatic approval.¹⁸

However, the Estimates Committee (2018) has observed that the indigenisation level in the defence sector is increasing at a very slow rate. It further stated that nothing concrete has been done for the implementation of the strategic partnership model, which envisaged a key role for private players in building platforms such as submarines and fighter jets in India.¹³ The Committee also noted the high dependence on external content by Defence Public Sector Undertakings (DPSUs). For example, the import content for platforms manufactured by Hindustan Aeronautics Limited (in terms of value of the platform), ranged between 40% to 60%.¹³

Border Roads Organisation

An amount of Rs 3,050 crore was allocated in 2020-21 for works carried out by the Border Roads Development Board (BRDB). This is 3% lower than the revised estimate for 2019-20 (Rs 3,141 crore). The BRDB was created in 1960 to ensure coordination of road construction projects in north and northeast states, for enhancing defence preparedness. The Border Roads Organisation (BRO) is the executive arm of BRDB.¹⁹

The Standing Committee on Defence (2019) observed that since 2007-08, the targets set for various construction works by BRO could not be achieved. However, despite the failure to achieve these targets, higher targets were set in subsequent

years which led to further underperformance. The failure to achieve targets was attributed to various issues faced by BRO such as difficult terrain, limited working period, and lack of raw material.¹⁹

Further, the availability of construction equipment with the BRO was less than the authorised numbers in 2016-17.¹⁹ Equipment such as stone crushers and tippers were 40% and 50% less than the authorised numbers, respectively. The Standing Committee also noted that BRO was using indigenous equipment as they operate in remote locations where use of sophisticated equipment is not feasible. It recommended that use of sophisticated construction equipment may be explored to ensure quicker completion of projects.¹⁹

Research and Development

For 2020-21, the expenditure on defence research and development is Rs 19,327 crore, which constitutes 4% of the total defence budget (6% of defence budget excluding pensions). The allocation is an increase of 9% over the revised estimates of 2019-20. However, the Standing Committee (2019) noted that India's expenditure on defence research and development is much lower compared to countries such as USA and China which spend 12% and 20% of their defence budget on research and development, respectively.²⁰

Defence research is primarily carried out by the Defence Research and Development Organisation (DRDO). DRDO is engaged in developing defence technologies covering various areas including aeronautics, combat vehicles, and missiles.

The Estimates Committee (2018) in a report on defence production analysed the functioning of DRDO.¹³ It stated that an examination of 14 mission mode projects, carried out by DRDO laboratories revealed that all projects failed to meet their timelines and the date of completion was extended many times. These projects included creation of a secure communication system between airborne platforms and ground stations, and an electronic warfare suit for the modified Mig-29 fighters.

¹ "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/lssccommittee/Defence/16_Defence_40.pdf.

² "SIPRI Military Expenditure Database", Stockholm International Peace Research Institute, <https://www.sipri.org/sites/default/files/Data%20for%20all%20countries%20from%201988%E2%80%932018%20as%20a%20share%20of%20GDP%2028.pdf>.

³ "1st Report: Demands for Grants (2019-20) 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, December 2019,

http://164.100.47.193/lssccommittee/Defence/17_Defence_1.pdf.

⁴ Annual Report on Pay and Allowances of Central Government Civilian Employees 2016-17, Ministry of Finance, December 2017, <https://doe.gov.in/sites/default/files/PayAllowance2016-17%28English%29.pdf>.

⁵ Unstarred Question No. 287, Lok Sabha, Ministry of Defence, February 3, 2017, <http://loksabhadocs.nic.in/loksabhaquestions/annex/11/AU286.pdf>.

⁶ "46th 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, January 2019, http://164.100.47.193/lsscommittee/Defence/16_Defence_46.pdf.

⁷ 3rd Report, Capital Outlay on Defence Services, Procurement Policy and Defence Planning, Standing Committee on Defence, December 2019, http://164.100.47.193/lsscommittee/Defence/17_Defence_3.pdf.

⁸ “32nd Report: Creation of Non-Lapsable Capital Fund Account, Instead of the Present System”, Standing Committee on Defence, Lok Sabha, August 4, 2017, http://164.100.47.193/lsscommittee/Defence/16_Defence_32.pdf.

⁹ “48th Report: Action Taken by the Government on the Observations/Recommendations contained in the Fortieth Report (16th Lok Sabha) on ‘Demands for Grants of the year 2018-19 on Capital Outlay on Defence Services, Procurement Policy and Defence Planning’, Standing Committee on Defence, Lok Sabha, January 7, 2019, http://164.100.47.193/lsscommittee/Defence/16_Defence_48.pdf.

¹⁰ “41st Report: Demands for Grants (2018-19) Army, Navy, Air Force”, Standing Committee on Defence, March 12, 2018, http://164.100.47.193/lsscommittee/Defence/16_Defence_41.pdf.

¹¹ “Report No. 20 of 2017: Union Government (Defence Services) Navy and Coast Guard”, Comptroller and Auditor General of India, https://cag.gov.in/sites/default/files/audit_report_files/Report_No.20_of_2017_Compliance_audit_Union_Government_Defence_Services_Navy_and_Coast_Guard.pdf.

¹² “Report No. 3 of 2019: Performance Audit Report of the Comptroller and Auditor General of Indian on Capital Acquisition in Indian Air Force”, Comptroller and Auditor General, February 13, 2019.

¹³ “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.

¹⁴ Defence Procurement Procedure 2016, Ministry of Defence, March 28, 2016, <https://mod.gov.in/dod/sites/default/files/Updatedver230818.pdf>

¹⁵ “Committee of Experts for Amendments to DPP 2013 Including Formulation of Policy Framework”, Ministry of Defence, July 2015, <https://mod.gov.in/sites/default/files/Reportddp.pdf>.

¹⁶ “Raksha Mantri Shri Rajnath Singh approves a Committee to review Defence Procurement Procedure to strengthen ‘Make in India’”, Press Information Bureau, Ministry of Defence, August 17, 2019.

¹⁷ Draft Defence Production Policy 2018, Ministry of Defence, 2018, <https://ddpmod.gov.in/sites/default/files/Draft%20Defence%20Production%20Policy%202018%20-%20for%20website.pdf>.

¹⁸ “Cabinet approves amendments in FDI policy”, Press Information Bureau, Cabinet, January 10, 2018.

¹⁹ “50th Report: Provision of all-weather connectivity under Border Roads Organisation (BRO) and other agencies up to International borders as well as the strategic areas including approach roads- An appraisal”, Standing Committee on Defence, February 11, 2019, http://164.100.47.193/lsscommittee/Defence/16_Defence_50.pdf.

²⁰ “4th report: Ordnance Factories, Defence Research and Development Organisation, Directorate General of Quality Assurance and National Cadet Corps, Standing Committee on Defence, December 2019, http://164.100.47.193/lsscommittee/Defence/17_Defence_4.pdf.

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