POLITY AND GOVERNANCE

OMNIBUS TELECOM BILL IN LOK SABHA, LEGISLATION TO STREAMLINE REGULATION

CONTEXT: The Telecommunications Bill, 2023 introduced in the Lok Sabha consolidates spectrum rules, right of way, dispute resolution between service providers and the Department of Telecommunications or local governments, and other aspects of telecom regulation into one fresh statute.

SALIENT FEATURES:

1. **Authorisation for telecom-related activities:** Prior authorisation from the central government will be required to: (i) provide telecommunication services, (ii) establish, operate, maintain, or expand telecommunications networks, or (iii) possess radio equipment. Existing licences will continue to be valid for the period of their grant, or for five years, where the period is not specified.
2. **Assignment of spectrum:** Spectrum will be assigned by auction, except for specified uses, where it will be allocated on an administrative basis. These include purposes such as: (i) national security and defence, (ii) disaster management, (iii) weather forecasting, (iv) transport, (v) satellite services such as DTH and satellite telephony, and (vi) BSNL, MTNL, and public broadcasting services. The central government may re-purpose or re-assign any frequency range. The central government may permit sharing, trading, leasing, and surrender of spectrum.
3. **Powers of interception and search:** Messages or a class of messages between two or more persons may be intercepted, monitored, or blocked on certain grounds. Such actions must be necessary or expedient in the interest of public safety or public emergency, and must be in the interest of specified grounds which include: (i) security of the state, (ii) prevention of incitement of offences, or (iii) public order. Telecom services may be suspended on similar grounds. The government may take temporary possession of any telecom infrastructure, network, or services on occurrence of any public emergency or public safety. An officer authorised by the government may search premises or vehicles for possession of unauthorised telecom network or equipment.
4. **Powers to specify standards:** The central government may prescribe standards and assessments for telecom equipment, infrastructure, networks, and services.
5. **Right of way:** Facility providers may seek a right of way over public or private property to establish telecom infrastructure. Right of way must be provided on a non-discriminatory and non-exclusive basis to the extent possible.
6. **Protection of users:** The central government may provide for measures to protect users which include: (i) prior consent to receive specified messages such as advertising messages, (ii) creation of Do Not Disturb registers, and (iii) a mechanism to allow users to report malware or specified messages. Entities providing telecom services must establish an online mechanism for registration and redressal of grievances.
7. **Appointments to TRAI:** The Bill amends the TRAI Act to also allow individuals with: (i) at least 30 years of professional experience to serve as the chairperson, and (ii) at least 25 years of professional experience to serve as members.
8. **Digital Bharat Nidhi:** The Universal Service Obligation Fund has been established under the 1885 Act to provide for telecom services in underserved areas. The Bill retains this provision, renames the fund as Digital Bharat Nidhi, and also allows its use for research and development.
9. **Offences and penalties:** The Bill specify various criminal and civil offences. Providing telecom services without authorisation, or gaining unauthorised access to a telecom network or data, are punishable with imprisonment up to three years, a fine up to two crore rupees, or both. Breaching terms and conditions of authorisation is punishable with a civil penalty up to five crore rupees. Possessing unauthorised equipment, or using unauthorised network or service, is punishable with a penalty of up to ten lakh rupees.
10. **Adjudication process:** The central government will appoint an adjudicating officer to conduct inquiries and pass orders against civil offences under the Bill. The officer must be of the rank of joint secretary and above. Orders of the adjudicating officer may be appealed before the Designated Appeals Committee within 30 days. Members of this Committee will be officers of the rank of at least Additional Secretary. Appeals against the orders of the Committee, in connection to breach of terms and conditions, may be filed with TDSAT within 30 days.

POLITY AND GOVERNANCE

A BLOW FOR THE RIGHTS OF THE LEGISLATURE, IN LAW MAKING

CONTEXT: The Chief Justice of India (CJI), D.Y. Chandrachud in the State of Punjab vs Principal Secretary to the Governor of Punjab and Another creatively interpreted Article 200 of the Constitution of India which relates to the options before a Governor when a Bill, after being passed by the State Legislature, is presented to him for his assent.

Interprets the first proviso to Article 200 which deals with the suspensory veto powers of the Governor. Constitutional commentators like D.D. Basu and others, have held that the Bill withheld by the Governor dies a natural death. They were also of the view that the Governor enjoys discretionary powers regarding the suspensory veto powers. Thus, there was a presumption that the Governor's power to withhold assent from a Bill is absolute.

Emphatic in saying 'no delay'

The CJI linked the pocket veto powers - withholding of assent with suspensory veto powers - sending of the Bill back to the Assembly for reconsideration virtually knocking out the option of withholding assent. The judgment disallowed the Governor to withhold assent indefinitely, requiring the Governor to send it back to the Assembly immediately for reconsideration, in which case he has no other option except to give assent.

On Bills for the President's consideration

Reserving a Bill for the consideration of the President is an absolute option still available to a Governor. The second proviso to Article 200 mentions one kind of Bills which are mandatorily to be reserved for the consideration of the President. The discretionary powers of the Governor to reserve ordinary and Money Bills duly passed by the State Legislature to the consideration of the President is provided under Article 201 of the Indian Constitution. The Governor of the State is obliged to reserve the bill for the consideration of the President, where the bill passed by the state legislature endangers the position of the State High Court. In addition, the Governor can also reserve the bill with provisions of the following nature:

1. Contains ultra-vires provisions, i.e., against the provisions of the Constitution.
2. Provisions in bill oppose the Directive Principles of State Policy.
3. Dealing with compulsory acquisition of property under Article 31A of the Constitution.
4. Provisions against the larger interest of the country.
5. Provisions of grave national importance.

The Governor of Kerala, Arif Mohammed Khan did not act on eight Bills that were with him for over two years. When the Supreme Court took up the Kerala government's petition challenging the Governor's inaction, he gave his assent to one Bill and sent the seven Bills to the President for his consideration. The Tamil Nadu Governor sent 10 Bills for reconsideration by the Assembly after many complaints by the State government. The Assembly after reconsideration sent the Bills to the Governor without accepting any amendments. But in a strange act the Governor sent all those Bills to the President for his consideration which is patently against the Constitution. Article 200 (First proviso) requires him to give his assent to the Bills.

Article 213 deals with the ordinance-making power of Governors. Under this provision, in certain cases, the Governor can promulgate an ordinance only with instruction from the President. Under clause (b) of the above Article, the Governor can promulgate an ordinance only with instructions from the President in a case where he would have deemed it necessary to reserve a Bill containing the same provisions as in the ordinance. The words "deemed it necessary" indicate the making of judgement by the Governor in terms of the constitutional scheme of the power of legislative division. In other words, the Governor cannot act on his whims while deeming it necessary to reserve the Bills.

Issue of State subject

Article 254 makes an indirect reference to the President's assent to a State Bills. A State law on an item in the Concurrent List that has received the assent of President, after being reserved by the Governor will prevail in that State even when it contains a provision repugnant to the provisions of an existing central law. A Bill on a Concurrent subject can be or needs to be sent to the President for assent only if it contains provisions repugnant to an existing central law. But it does not indicate that every Bill on a concurrent subject should be sent to the President for assent.

The President has no jurisdiction to scrutinise and give assent to a Bill exclusively on a subject in the State List because of the federal scheme of legislative division. Therefore, it would seem that if the Governor sends a Bill on the State's matter to the President, it would be an abdication of the constitutional duty of a Governor.

So, from the above analysis, it can be concluded that a Governor cannot send to the President for assent Bills which are exclusively on the State subject. Also, he cannot send Bills on concurrent subjects if they do not contain provisions repugnant to the central law. If the Governor thinks that a Bill contains unconstitutional provisions, the only option for him is to send it back to the Assembly for reconsideration. A Governor is not personally responsible for anything done by the government. Further, constitutional validity of a law is decided by the court and neither the Governor nor the President has any jurisdiction over it.

"Education is the ability to listen to almost anything without losing your temper or your self-confidence." - Robert Frost

ECOLOGY AND ENVIRONMENT

WHAT DOES COP-28 MEAN FOR CITIES?

CONTEXT: The 28th Conference of Parties (COP-28) in Dubai was an important COP owing to the Global Stock Taking (GST) over the Paris climate deals of keeping global temperatures below 1.5 degree Celsius and reducing greenhouse gas (GHG) emissions.

What was discussed about cities?

When the United Nations Framework Convention on Climate Change (UNFCC) initiated the COP in 1995, 44 % of people lived in cities. Currently, 55 % of the global population is urban and this is expected to reach 68 % by 2050. The urban world today consumes nearly 75 % of primary energy and is responsible for roughly 70 % of CO2 (76 % of total GHG) emissions. Hence, the desired results of the Paris commitments are not possible without addressing urban issues.

At this year's COP, there was a special day dedicated to a ministerial meeting on urbanisation and climate change. This meeting convened Ministers of housing, urban development, environment finance, and other portfolios; local and regional leaders, financial institutions, non-government organisations; and other stakeholders.

This lays down the fundamental point of redefining the financial and governance architecture of COPs. City representatives have been arguing for multi-level green deal governance and for revising the governance and regulation of energy and climate action. Likewise, some European city groups have been staunchly advocating for direct actions in cities.

Cities and regions are key actors in driving climate ambition forward and in creating green jobs, reducing air pollution, and improving human health and well-being. Rafal Trzaskowski, leading member of the mayor's delegation for COP-28, argued for formally recognising the role of subnational governments in global climate change negotiations, accelerating and scaling up climate action by working across all levels of governance and sectors, and providing direct financing and technical assistance to cities and regions. This will require an 'out of the box' imagination as it would mean transgressing the authorities of federal governments. The efforts of city governments should be formally recognised in COP decision documents.

What can be done in the Global South?

The city leaders are hardly empowered, the major employment is in the informal sector, adaptation is key as most cities are vulnerable to climate induced disasters than their western counterparts. In most countries, and in India particularly, 40% of the urban population live in slums. Pollution is a major contributor in reducing life expectancies and social and economic inequities are quite inherent in their systems. So, to ensure fair participation in climate action plans and to claim loss and damage compensation, etc., there has to be a radical shift in the processes governing the cities. One of the ways of achieving progress, even if that is too little, can be through creating a climate atlas of these cities, mapping them and identifying hotspots. Here, a major support system from existing financial architecture including the outcome of COPs is required.

There is hardly any representation of city leaders and civil society groups in the preparation of Nationally Determined Contributions (NDCs) and National Adaptation Plans. Cities like Chennai are spearheading their climate action plan and have decided to meet their zero emission targets by 2050, even before the Indian national government's stipulated time period of 2070.

SCIENCE AND TECHNOLOGY

INDIA'S FIRST WINTER ARCTIC EXPEDITION BEGINS; RAMAN RESEARCH INSTITUTE TEAM TO HOLD STUDY

CONTEXT: The Earth Sciences Minister Kiren Rijiju flagged off the month-long scientific expedition in a bid to maintain a year-long presence at the India's research station in Alesund town on the Brogger peninsula, where research institutes from 10 countries have laboratories.

The month-long scientific expedition is being funded by the Earth Sciences Ministry. The National Centre for Polar and Ocean Research, Goa, is the nodal agency spearheading the expedition, which will go on till January 15.

The Raman Research Institute (RRI) here is participating in the first winter Indian expedition to the Arctic region. Researchers from RRI would examine the characterisation of the radio frequency environment in the Svalbard region of the Arctic in Norway. The survey will help astronomers assess the suitability of this uniquely located region for carrying out precision astronomy measurements. The RRI team was selected as the first batch of scientists who will conduct experiments spanning astronomy, climate change and atmospheric science.

The survey of the radio frequency environment had never been done before at the site and could potentially open avenues for deploying low-frequency radio telescopes in the region. For nearly a decade now, engineers and scientists at the RRI have been working on the development of the shaped antenna measurement of the background radio spectrum (SARAS) series of experiments. SARAS aims to study the faint cosmological signal from hydrogen, commonly referred to as the 21-cm signal, emerging from the cosmic dawn and the epoch of reionization.

Cosmic dawn denotes the period when the first stars and galaxies were born in the universe. These are the two vital phases that the universe underwent during its early stages of evolution several billions of years ago. These periods in cosmic history are not well understood due to a lack of observations.

Due to rampant urbanisation in recent years, the space for the deployment of scientific experiments for cosmological studies is fast shrinking. Several places where low-frequency astronomical observations were conducted in the past, are no longer suitable for carrying out precision measurements. And the biggest limitation in achieving the required sensitivity is RFI. Sensitive electronic instruments will be used to study the incoming radio signals in the frequency range of 5-500 megahertz (MHz) at the accessible sites in the vicinity of Himadri.

POLITY AND GOVERNANCE

MINISTRY ISSUES ADVISORY TO STATES IN VIEW OF DETECTION OF THE NEW JN.1 VARIANT IN INDIA

CONTEXT: The Union Health Ministry has asked all States to maintain a constant vigilance over the COVID-19 situation in the country in view of the upcoming festive season and the recent surge in cases in some parts of the country. The alert comes following the detection of the country's first case of the new JN.1 variant of COVID-19 in Kerala.

COVID-19 virus continues to circulate and its 'epidemiology behaviour' gets settled with Indian weather conditions. This coupled with circulation of other usual pathogens makes it important that we keep up the momentum of effectively dealing with the challenges in public health. He said that owing to consistent and collaborative actions between the Centre and the State governments, India had been able to sustain the trajectory at sustainable low rates.

The States are advised to put in place requisite public health measures and other arrangements to "minimise risk of increase in transmission by adherence to maintenance of respiratory hygiene".

The States have been urged to ensure compliance with the detailed 'Operational Guidelines for Revised Surveillance Strategy' for COVID-19 and to monitor and report district-wise influenza-like illness (ILI) and severe acute respiratory illness (SARI) cases in all health facilities on a regular basis, including in the Integrated Health Information Platform (IHIP) portal, for detecting the early rising trend of cases.

The Ministry said adequate testing should be conducted in all the districts following COVID-19 testing guidelines and the share of RT-PCR and antigen tests maintained.

ECONOMICS AND DEVELOPMENT

DIRECT TAXES SWELL, EXCEED 75% OF BE

CONTEXT: India's net direct tax collections had grown 20.7 % by December 17 to cross ₹ 13.70 lakh crore, indicating that 75.15 % of the year's direct tax target had been met.

As of November 30, the net direct tax kitty stood at ₹ 10.64 lakh Cr. or 58.34 % of Budget estimate, so collections have risen by ₹ 3.06 lakh Cr. so far in December as per the latest provisional numbers.

The net direct tax collection of ₹13,70,388 Cr. (as on 17.12.2023) includes Corporation Tax (CIT) at ₹6,94,798 Cr. (net of refund) and Personal Income Tax (PIT) including Securities Transaction Tax (STT) at ₹6,72,962 Cr. (net of refund).

Total Advance Tax collections so far this year stood at ₹6,25,249 Cr., reflecting a growth 19.94% so far this year, with corporate taxes of ₹4,81,840 Cr. and personal income tax of ₹1,43,404 Cr.

A little over ₹22,000 Cr. of refunds have been effected in December, as per the ministry's data which showed total tax refunds stood at ₹2,25,251 Cr. as of Sunday, from about ₹2.03 lakh Cr. by November 30.

Gross direct tax collections stood at ₹15,95,639 Cr., which included CIT of ₹7,90,049 Cr. and ₹8,02,902 Cr. from Personal Income Tax and Securities Transaction Tax.

"Minor head-wise collection comprises Advance Tax of ₹6,25,249 Cr.; Tax Deducted at Source of ₹7,70,606 Cr.; Self-Assessment Tax of ₹1,48,677 Cr.; Regular Assessment Tax of ₹36,651 Cr.; and Tax under other minor heads of ₹14,455 Cr.," the Finance Ministry said in a statement.

ECONOMICS AND DEVELOPMENT

CAPEX LOANS TO STATES YET TO HIT HALF OF FY24'S ₹1.3 LAKH CR.

CONTEXT: The Centre has released less than half of the ₹1.3 lakh Cr. allocated for special assistance loans to States to undertake capital expenditure with a little more than a quarter to go in financial year 2023-24.

Four States — Kerala, Andhra Pradesh, Punjab and Manipur — have not been given any funds as they failed to meet the specified eligibility criteria under the scheme, which provides 50-year interest-free loans for State capex and was introduced in the midst of the COVID-19 pandemic in 2020-21.

While the scheme began with an allocation of ₹ 12,000 Cr., it was raised to ₹ 15,000 Cr. in 2021-22. States had availed almost the entire allocations in those two years. In 2022-23, when the outlay was increased sharply to ₹1.07 lakh Cr., States availed a little over ₹ 81,000 Cr.

By December 13, the Centre had released ₹ 60,307.19 Cr. to States as Special Assistance (loan) for Capital Expenditure, Minister of State for Finance Pankaj Chaudhary informed the Lok Sabha in response to a question.

Before their disqualification this year, Andhra Pradesh had availed ₹ 7,285 Cr. under the scheme, while Kerala and Punjab had utilised ₹ 2,222.7 Cr. and ₹ 1,318.2 Cr., respectively, followed by Manipur at almost ₹ 1,000 Cr.

The States that have received the highest amount of funds as capex loans so far in this financial year are Uttar Pradesh (₹ 12,458.4 Cr.), Bihar (₹ 6,135.5 Cr.) and Madhya Pradesh (₹ 5,325.6 Cr.).

SCIENCE AND TECHNOLOGY

CUSTOMISED mRNA IS THE NEXT FRONTIER IN PERSONALISED MEDICINE

Researchers can create new mRNAs to correct mRNAs created in your body cells that serve as instructions to make specific proteins you need to function.

What does mRNA do?

DNA is like a set of cookbooks full of different recipes, or genes, to make proteins. People make about 100,000 different proteins that are essential for normal function, such as breaking down nutrients and carrying out other important chemical reactions. When cells need to make one of those proteins, they don't read the recipe directly from DNA. Instead, they make a copy in the form of a similar molecule – that's the mRNA. The "m" stands for messenger, as mRNA contains the message, or recipe, that codes for a protein. About one-third of a cell's energy is devoted to maintaining the proteins you need, so cells are well equipped to recognise, use and then destroy mRNA once it's no longer needed.

The language of mRNA is made of four building blocks called nucleotides, nicknamed A, U, C and G. The recipe to make a protein contains only three-letter words, meaning there are just 64 possible words. Scientists know exactly which words correspond to each protein building block, so they can easily read an mRNA recipe and know what protein will be made. Mutations in the DNA cookbook can alter or delete an mRNA recipe, leading to disease-causing mistakes in critical proteins.

Why do mRNAs make great medicine?

While mRNA has been within us all along, it took decades of research for scientists to understand how cells recognise mRNA and use it to make protein. But it eventually became clear that mRNA could be a powerful medical tool.

Since scientists understand how mRNAs code for proteins, they can easily create recipes for any protein. These recipes can be edited to meet the needs of the patient, whether this means providing a whole new mRNA recipe or tweaking an existing one to make a slight variation of the protein.

Producing mRNA treatments is also scalable because scientists can make large amounts of mRNA in the lab. Another benefit of using mRNAs as drugs are cells' natural ability to destroy them when they aren't needed. Since mRNAs aren't permanent, doses can be easily changed to meet the changing needs of the patient.

mRNA vaccines beyond COVID-19

The COVID-19 vaccines from Moderna and Pfizer-BioNTech are the first mRNA-based medicines to gain FDA approval. When these vaccines are injected into your arm, the mRNA is absorbed into some of your cells, which read the mRNA recipe and make the spike protein the virus uses to invade cells. Your immune system recognises this spike protein as foreign and makes antibodies that prepare your body to attack the virus if you encounter it later. These mRNA vaccines demonstrate the flexibility of mRNA-based therapies. Scientists are able to sequence new mRNA recipes based on these variants and tweak the vaccine recipes to match them. Boosters containing these edited recipes teach your body to make new antibodies that target the latest versions of the viral spike protein as COVID-19 mutates.

There are already clinical trials underway for other mRNA-based vaccines, including vaccines for seasonal flu, herpes and respiratory syncytial virus. There are also many more vaccines in earlier stages of development to combat diseases like norovirus, Lyme disease, Zika and shingles.

mRNA as treatment for disease

The potential for mRNA-based medicine extends beyond vaccines to prevent infectious disease. One example is the use of mRNA to treat cancer.

Some mRNA cancer treatments work like vaccines by training your immune system to specifically target cancer cells. As cancer cells grow, they rapidly gain mutations in many genes. Cancer vaccines contain mRNA recipes based on mutations commonly found in certain types of tumours. When injected into the body, the mRNAs from the vaccines allow normal cells to make those mutated proteins and broadcast them to the immune system, ramping up production of antibodies. These antibodies bind to cancer cells and mark them for immune attack.

Finding the correct protein target for a given cancer is essential. Ideally, the target is unique to the cancer cell so the immune system doesn't attack healthy cells. The target protein should also be easy for the immune system to sense, making surface proteins good targets. Cancer vaccines, like BioNTech's BNT-111 for melanoma, target the most common cancer mutations in the hope of helping many patients. But patients won't benefit from the treatment if their cancer cells don't have those particular mutations.

Because it is so easy to change the mRNA recipes, cancer vaccines can be part of a personalised medicine plan where doctors sample a patient's tumour, sequence key genes and adjust the mRNA treatment to include recipes specific to that patient's cancer. Clinical trials using this personalised approach for pancreatic cancer are underway.

Future of mRNA-based medicine

Many diseases arise from cells making the wrong protein, a mutant version of protein or too little of the normal protein. If scientists can deliver a corrected version of the mRNA recipe to enough affected cells, then the mRNA will provide the means to make the proper protein.

Scientists are exploring the use of mRNA to treat heart disease, neurodegenerative disease, bone loss and much more. Although most of these studies are still very early in development, they provide hope for future treatments using mRNA for protein replacement therapies.

For example, one mRNA drug increases the formation of new blood vessels, which can improve wound healing in diabetic patients who have poor blood circulation and higher amputation risks. Another example is using mRNAs to treat propionic acidaemia, a disease where children have low levels of two liver proteins that normally prevent toxic by-products from building up in the body.

POLITY AND GOVERNANCE

NUMBER OF CAG AUDITS ON UNION GOVT. TABLED IN PARLIAMENT HITS A LOW

Fewer audit reports

The data for the charts were scraped from the Comptroller and Auditor General of India (CAG)'s audit reports and performance activity reports

Supreme auditor: A view of the CAG office in New Delhi. R.V. MOORTHY

Chart 1 : The chart shows the year-wise number of Union audit reports tabled in Parliament

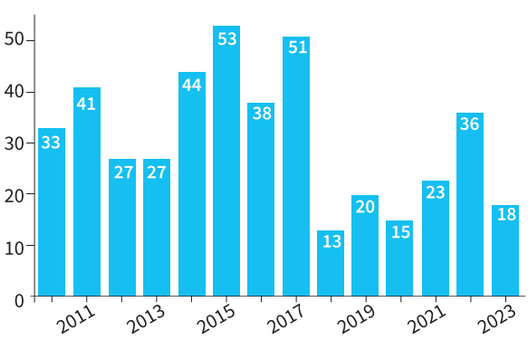


Chart 2 : The chart shows the department-wise number of audit reports tabled in Parliament

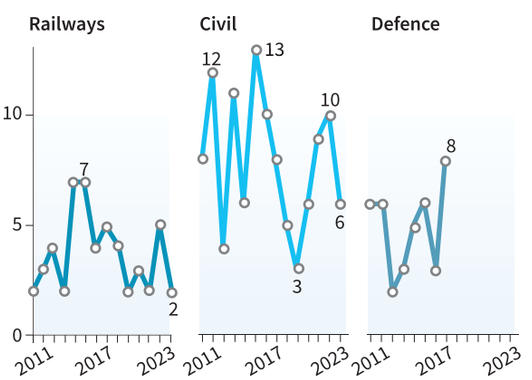


Chart 3 : The chart shows the staff strength (left-axis) and staff strength as a % of sanctioned posts (right-axis)

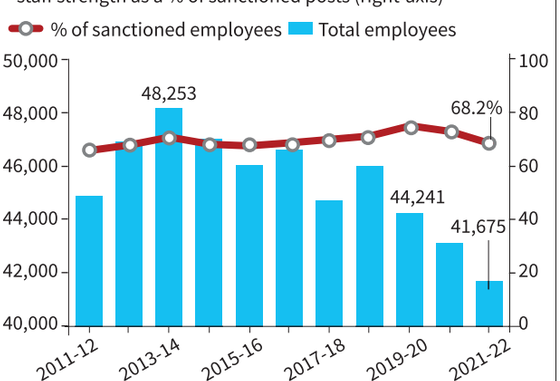
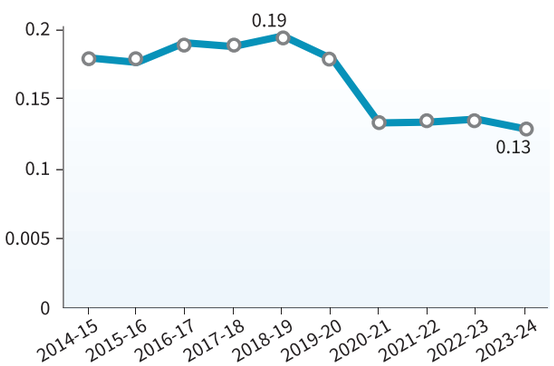


Chart 4 : Year-wise amount spent by the IA&AD as a share of the Union Budget's total expenditure



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