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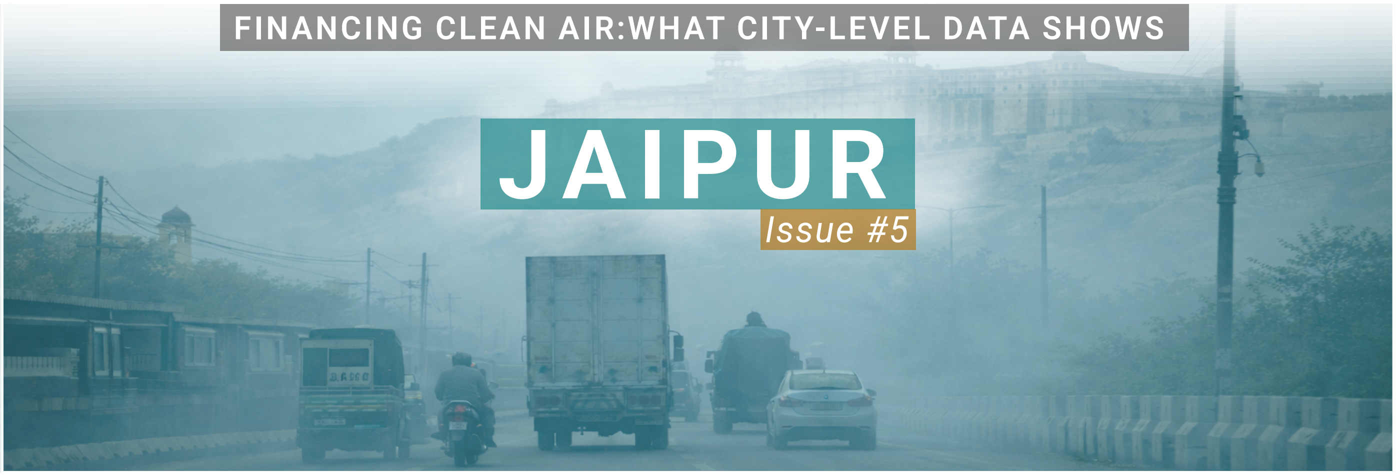


FINANCING CLEAN AIR:WHAT CITY-LEVEL DATA SHOWS

JAIPUR

Issue #5

HIGHLIGHTS

- Between FY 20-21 and FY 25-26, the XV FC allocated ₹620 to Jaipur for air pollution mitigation.
- 55 per cent of this i.e. ₹339 crore had been released till 4 January 2026. The entire released amount has been utilised.
- 97 per cent of the money utilised has been spent to reduce road dust and control construction and demolition emissions. 3 per cent has been spent on waste management and less than 0.5 per cent towards public outreach. No XV FC funds have been spent towards reducing other sources of pollution.
- PM10 levels in Jaipur have increased as compared to FY 19-20 (the year of NCAP implementation). They are also higher than national and international standards.

OVERVIEW

In January 2019, the Ministry of Environment, Forests and Climate Change (MoEF&CC) launched the National Clean Air Programme (NCAP), a time bound, national level initiative to improve air quality.[1] The programme follows a collaborative approach, involving central ministries, state governments, local bodies, and other stakeholders.[2]

Presently, 130 cities, comprising cities having a million plus population (million-plus cities) and non-attainment cities (NACs)[3] are implementing air pollution control measures under the NCAP. These cities are required to prepare and implement clean air action plans that target major pollution sources. Funding for implementing the action plans is drawn by converging resources from central schemes like the Swachh Bharat Mission (Urban) (SBM), Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Smart City Mission, along with support from state governments, urban local bodies and development authorities.[4]

Additionally, performance-linked grants serve as supplementary funding to bridge critical resource gaps. Between FY 19-20 and FY 25-26, ₹19,611 crore was allocated as performance-linked grants for NCAP implementation, comprising:[5]

- ₹16,539 crore for 48 million-plus cities funded by the XV FC (Fifteenth Finance Commission)[6]
- ₹3,072 crore for remaining 82 NACs funded by the MoEF&CC[7]

The NCAP targets a 40% reduction in PM10 levels or achievement of NAAQS for PM10 concentration by 2025-26.[8] To support implementation and enhance transparency, the government launched the PRANA Portal (Portal for Regulation of Air Pollution in Non-attainment Cities), a web-based platform for better monitoring in September 2021.

ABOUT THIS BRIEF

The city brief focuses on Jaipur, reviewing:

- Fund flow mechanisms, allocations, receipts, and expenditures under the NCAP
- Key activities undertaken using these funds
- Air quality monitoring systems and AQI trends

The purpose is to provide a snapshot of Jaipur's progress under NCAP and examine how resources have been used to improve air quality.

TRENDS IN ALLOCATION, RELEASES AND EXPENDITURES

This section provides an overview of the allocation, release, and utilisation of XV FC funds in Jaipur between FY 20-21 and FY 25-26. In FY 19-20, ₹6 crore was released to Jaipur by the MoEF&CC under NCAP as it was classified as an NAC.[9] This amount has not been included in the analysis.

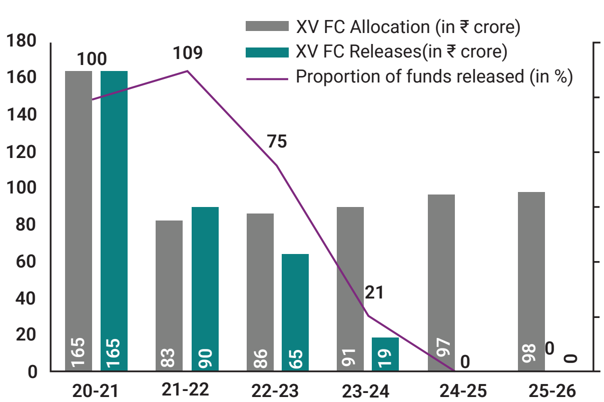
The MoEF&CC releases all XV FC funds to the state Finance Department, which transfers them to the Local Self Government Department. Jaipur has two Nagar Nigams i.e. Heritage and Greater Jaipur. As the nodal NCAP authority, Heritage Nagar Nigam receives the funds first and subsequently transfers half to the Greater Jaipur Nagar Nigam. All XV FC funds for Jaipur are divided equally between the two bodies.

- Between FY 20-21 and FY 25-26, the total proposed allocation for Jaipur was ₹620 crore, determined on the basis of population size. Of this, 55 per cent (₹339 crore) has been released.

- In FY 20-21, Jaipur received 100 per cent of allocated funds. Fund release was the highest in FY 21-22 when disbursement exceeded the annual allocation. This is because Jaipur received an additional incentive amount of ₹7 crore for being a top-performing city in that year.

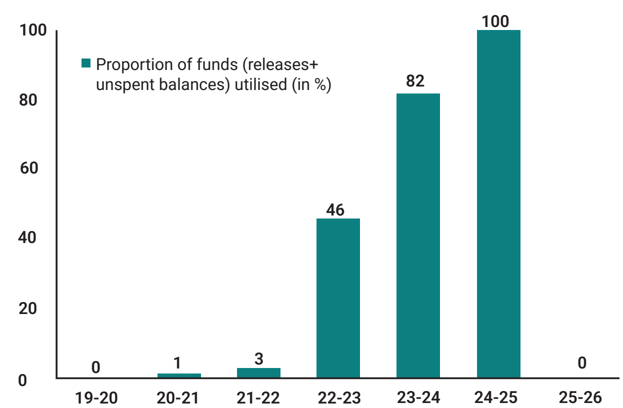
- However, fund releases have declined since then. No funds were released in FY 24-25 because Jaipur did not meet the requisite performance parameters. In FY 25-26, Jaipur is eligible to receive 75 per cent of its allocation, based on its performance score[10] but no funds have been released till 4 January 2026.

Figure 1: Approved allocation and releases for NCAP in Jaipur (FY 20-21 to FY 25-26)



Source: For FY 20-21 allocation figures are from the XV FC Report for 20-21 available at: url. For FYs 21-22 to 25-26, allocation figures are from Annexure 7.6 of the XV FC Report for 21-26 available at: url. Release figures for all years have been sourced from the PRANA portal.

Figure 2: Utilisation of NCAP funds in Jaipur (FY 19-20 to FY 25-26)



Source: Expenditure data has been sourced from the PRANA portal and is updated as on 4 January 2026.

Note: Utilisation has been computed as a proportion of releases and unspent balances for each year. In FY 21-22, a total of ₹8 crore was utilised, of which ₹4 crore was the MoEF&CC funds and the remaining ₹4 crore was the XV FC releases. In FY 20-21 only MoEF&CC releases were utilised.

- Further, there have been delays in the release of funds. Releases to the SPCB typically occur near the end of the financial year, which meant the Nagar Nigam often only received them in the following year. For instance, in FY 23-24 the Nagar Nigam received no funds and only received the ₹19 crore released later, in FY 24-25.[11]

- Yearly expenditure has been estimated as a proportion of total funds available, which includes unspent balances or the funds that are carried forward from previous years, as well as fresh releases for that year.

- As of 4 January 2026, ₹345 crore or 100 per cent of total funds available has been utilised for air pollution-related activities. However, utilisation has varied across years.

- Utilisation was almost negligible between FY 19-20 and FY 21-22. In FY 22-23, 46 per cent of available funds were utilised. In FY 24-25 all available funds were utilised. There has been no utilisation in FY 25-26 because no new funds have been released to Jaipur since FY 23-24, and no unspent balances remain.

- All funds utilised in FY 20-21 (₹2 crore) and part of the funds utilised in FY 21-22 (₹4 crore) were drawn from the MoEF&CC releases, not from the XV FC grants.[12]

TRENDS IN NCAP EXPENDITURE

Air pollution stems from multiple sources. The CPCB highlights that improving air quality in polluted cities requires a systematic approach involving: identifying emission sources, assessing their relative contributions, prioritising critical sources, evaluating feasibility and cost-effective control measures, and implementing targeted action plans.[13] Thus, under NCAP, cities are required to conduct source apportionment studies to guide planning and resource allocation.

Jaipur's source apportionment study was conducted by the SPCB in collaboration with IIT Kanpur and completed in January 2020.[14] The study found that PM10 sources varied seasonally. In winter, major contributors included soil and road dust, secondary inorganic aerosol particles, biomass burning, vehicular emissions, and municipal solid waste burning. In summer, coal and fly ash also contribute to PM10. The contribution of each source varies depending on the season. Despite these variations, three sources consistently contributed to both PM10 and PM2.5 levels across seasons i.e. secondary inorganic aerosols, biomass burning, and vehicular emissions. In addition, soil and road dust, and construction materials were major contributors to PM10 specifically.

The study recommended several interventions, including addressing secondary particles generated from industrial gases (like power plants and refineries), promoting electric and hybrid vehicles, restricting vehicular movement in congested zones, eliminating biomass burning, shifting to cleaner fuels, improving solid waste collection and disposal, enhancing road sweeping and construction site management, and expanding the green cover. Overall, findings underscore the need for multi-sectoral action.

All expenditures are categorised under six themes:

- Strengthening infrastructure, monitoring network and source apportionment
- Public outreach
- Road dust and C&D control
- Vehicle-related interventions
- Industrial pollution control,
- Waste and biomass dumping and burning.

As explained below, NCAP and XV FC funds in Jaipur have been utilised by different institutions.

TRENDS IN UTILISATION OF MoEF&CC FUNDS

- In FY 19-20, Jaipur requested ₹10 crore to undertake key interventions such as installing CAAQMS, conducting public awareness programmes, ensuring proper waste collection etc.[15] However, it only received 60 per cent of the proposed budget (₹6 crore) from the MoEF&CC.
- Those funds were transferred to 5 executing agencies i.e. SPCB, the two Nagar Nigams, Jaipur Development Authority (JDA), and Rajasthan State Industrial Development and Investment Corporation Limited (RIICO). Although funds were released in FY 19-20 they remained unspent due to a lack of clarity on how to spend them. COVID-19 further delayed utilisation.
- Funds were utilised in FY 20-21 and FY 21-22 with ₹2 crore and ₹4 crore being utilised in both years, respectively.
- The Rajasthan SPCB accounted for nearly half the total spending and directed funds towards strengthening infrastructure and monitoring capacity by installing CAAQMS, procuring mobile air quality monitoring vans, and establishing a mobile enforcement unit, all of which support real-time air quality assessment.
- The Nagar Nigams accounted for one-third of the total spending, with around 59 per cent of their expenditure directed towards reducing road dust and controlling construction/ demolition activities. Major initiatives included the purchase of mechanical street sweepers, greening, and paving. Remaining funds were used for public awareness and waste disposal.
- The JDA (15 per cent) and RSIDICL (6 per cent) accounted for smaller shares of expenditure. Although information was requested on the specific activities undertaken by these agencies, detailed utilisation data was not provided.

Table 2: Utilisation of funds by different agencies

Agency	Amount utilised (in ₹lakh)	Percentage of total funds utilised
Rajasthan State Pollution Control Board	282	47
Nagar Nigam (Heritage and Greater)	192	32
Jaipur Development Authority	90	15
Rajasthan State Industrial Development and Investment Corporation Limited	36	6

Source: Information received through field visits

TRENDS IN UTILISATION OF XV FC FUNDS

- The two Nagar Nigams utilised all XV Funds in Jaipur. Funds are transferred to both bodies in equal proportion.
- As discussed in the previous section, Jaipur has fully utilised the XV FC funds released to it. Of this, 97 per cent has been spent towards activities aimed at reducing road dust and emissions from construction and demolition sources. 3 per cent has been utilised towards waste management, and less than 0.5 per cent has been used for public outreach. No funds were utilised under any other theme.
- Public outreach expenditure was limited to organising 60 awareness events to engage citizens and spread awareness about sources of pollution
- For reducing waste, key activities included purchasing waste composters and vehicles for solid waste collection
- Expenditure on road dust control was distributed as follows:
  - Paving and widening of roads (89 per cent)
  - Developing green spaces (9 per cent)
  - Creation of pedestrian infrastructure (1 per cent)
  - Procuring mechanical road sweeping machines (0.5 per cent)
  - Cleaning and spraying roads to suppress dust (0.3 per cent)

Table 3: Utilisation of XV FC funds across 6 activities between FY 19-20 to FY 25-26

Activity	Fund utilised (in ₹ crore)
Road dust	328
Public outreach	1
Strengthen infrastructure	-
Vehicles	-
Industries	-
Waste	10

Source: Review Meeting of District Level Implementation Committee (15 September 2025)

For FY 25-26, the proposed utilisation of the ₹74 crore that the city expects to receive is as follows:

Road Dust (89 per cent): paving work, development of green cover and mechanical road sweeping

Public outreach (2 per cent): school and college-led awareness and engagement activities

Strengthening infrastructure (7 per cent): installing air pollution control devices in crematoriums and transitioning to cleaner fuels

Vehicles (2 per cent): improving traffic junctions to reduce congestion

CONVERGENCE ACTIONS IN JAIPUR

NCAP emphasises convergence across ministries and departments to achieve air quality improvements. During our visit to the Nagar Nigam, we sought clarity on the initiatives undertaken through existing Central Sector and Centrally Sponsored Schemes; however, the request for information was declined.

Nevertheless, basis a review of the Steering Committee and National Apex Committee Reports, the following convergence activities have been undertaken in Jaipur:

- ***Promotion of electric mobility:*** Under FAME Phase II (Faster Adoption and Manufacturing of Hybrid and Electric Vehicles) the Department of Heavy Industries sanctioned the deployment of electric buses in Jaipur. As of March 2023, 4 buses were deployed[16] and by September 2024, Jaipur's fleet expanded to 150 e-buses.[17] This initiative supports the reduction of vehicular emissions and encourages the use of clean transport options.

- ***Afforestation and greening:*** In 2023, approval was granted for the establishment of a Nagar Van (urban forest) in Jaipur.[18] The initiative promotes in situ flora conservation, mitigates air and noise pollution, supports groundwater recharge, reduces urban heat island effects, and creates accessible green spaces within the city. Additionally, the MoEF&CC sanctioned ₹1.8 lakh to establish two school nurseries, targeting the cultivation of 2000 saplings, to raise environmental awareness among students, foster a culture of planting, and involve educational institutions in greening efforts.[19]

- ***Emission Control Measures:*** To promote the transition to cleaner fuels, 31 CNG stations were approved in Jaipur in March 2023.[20] Additionally, Jaipur's gas distribution infrastructure includes 3,34,792 PMUY connections and 45 electric vehicle stations as well.[21] It has also achieved its targets for setting up automated testing stations and registered vehicle scrapping facilities to reduce road transport pollution by controlling vehicular emissions. [22]

GRIEVANCE REDRESSAL MECHANISM

An RTI application was filed on 31 July 2025 seeking information on the number of air pollution-related grievances recorded in Jaipur and the number that had been resolved. No information, however, was provided. Field visits to the SPCB revealed that there is no separate portal for air quality complaints. All complaints are submitted through the Sampark portal, which integrates grievance redressal across multiple departments. While air pollution grievances are logged, they are not publicly visible or separately tracked. As a result, the requested information could not be obtained.

AIR QUALITY MONITORING IN JAIPUR

Jaipur has a population of 30,46,163.[23] According to CPCB guidelines on air quality monitoring stations, cities with populations between 10,00,000 and 50,00,000 must operate at least:[24]

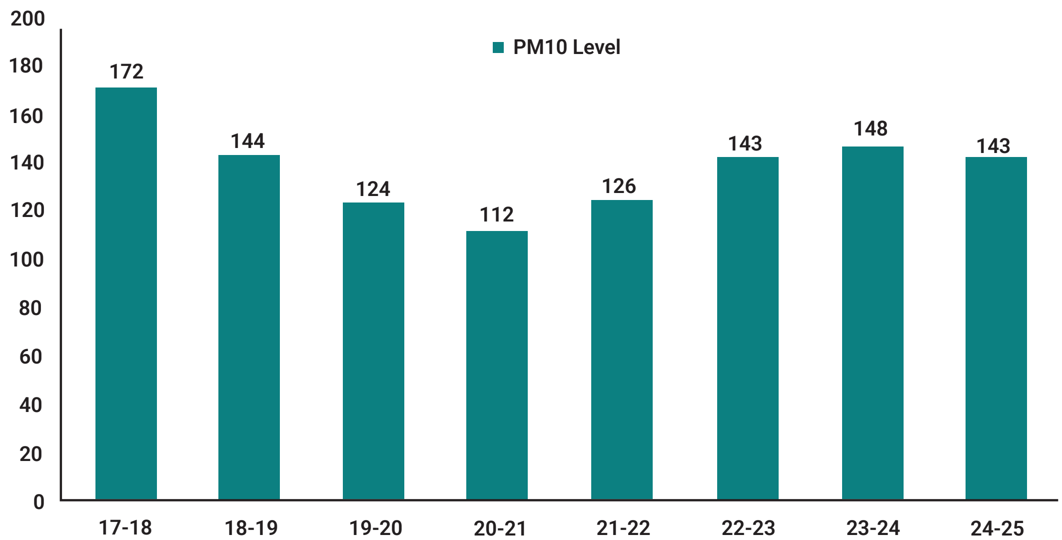
- 3 manual air quality monitoring stations (with two located in residential/ commercial areas)
- 5 continuous ambient air quality monitoring systems (CAAQMS) strategically placed across traffic-dominant, residential, commercial and industrial zones.

CAAQMS are advanced systems with power backup that generate real-time air quality data and can be remotely managed.[25] Jaipur exceeds these requirements. It currently operates 9 manual air quality monitoring stations[26] and 6 CAAQMS all of which are live and operational.[27]

As per data available on the PRANA portal, there has been an overall improvement in PM10 levels between FY 17-18 and FY 24-25, with PM10 concentration declining by 17 per cent from 172µg/m3 in FY 17-18 to 143µg/m3 in FY 24-25.

However, when compared to FY 19–20, the year marking the onset of NCAP implementation, there has been an overall increase in PM10 levels. After a brief improvement in FY 20–21, due to reduced human activity during COVID-19, PM10 levels have risen steadily. By FY 24–25, concentrations were 15 per cent higher than in FY 19–20.

Figure 3: PM10 levels in Jaipur from FY 17-18 to FY 24-25



Source: PRANA Portal

Additionally, the PM10 levels are still above national and international standards:

- The CPCB's NAAQS prescribe PM10 levels below 60µg/m3[28]
- The WHO's recommended annual limit is 15µg/m3.[29]

Further, in FY 24-25 Jaipur recorded 39 poor air quality days (AQI between 201 and 300),[30] compared to only 13 such days in FY 21-22[31] and none in FY 19-20.[32]

PM2.5 concentration is not being monitored under NCAP in Jaipur. There is a need for the MoEF&CC to revisit the monitoring framework to ensure that PM 2.5 is included and that data collection includes qualitative components that reflect public experiences and on-ground realities.[33]

CONCLUSION

While Jaipur has shown some improvement in air quality indicators, poor fund utilisation and slow implementation is a significant challenge. To progress towards clean air goals, it is important to address these gaps by:

- Ensuring adequate allocations in upcoming funding cycles, particularly in view of the new 16th Finance Commission report and the upcoming Union Budget announcements.

- Revisiting performance metrics so that cities are not incentivised to prioritise short term measures that lead to quick improvements in PM10 levels, over interventions that will have a longer-term impact

- Enhancing transparency of the PRANA portal by publishing detailed expenditure break-ups and information of convergence activities, to enable better tracking of spending and facilitate cross city learning

- Strengthening citizen engagement by increasing awareness about pollution-related grievance helplines and displaying both complaint status and resolution taken on a public dashboard

- Regularly updating source apportionment studies to ensure that interventions are aligned with current realities and emerging trends

- Providing targeted capacity building for officials involved with NCAP implementation to strengthen evidence-based decision making and planning

REFERENCES

[1]Government launches National Clean Air Programme (NCAP) (10 January 2019) url.
[2]*Ibid.*
[3]Non-attainment cities are those where air quality levels exceeded the National Ambient Air Quality Standards (NAAQS) for 5 consecutive years. These standards were notified by the Central Pollution Control Board on 18 November 2009. As per them, PM10 levels should not be greater than 100µg/m3 in residential areas within a 24 hour period: url. The list of NACs must be updated every year.
[4]MoEF&CC Annual Report (2024-25) url.
[5]*Ibid.*
[6]For FY 21-22 to FY 25-26 ₹12,139 crore was earmarked for achieving ambient air quality in million plus cities under the million-plus cities challenge fund. For FY 20-21 ₹4,400 crore was recommended.
[7]Funding for NCAP is under the MoEF&CC's control of pollution scheme.
[8]National Clean Air Programme (NCAP) to improve air quality in 131 cities by engaging all stakeholders (23 March 2023) url; Lok Sabha Starred Question No. 17 (25 November 2024) url.
[9]Government launches National Clean Air Programme (NCAP) (10 January 2019) url; Funds released and utilised in Jaipur from the PRANA Portal.
[10]Review Meeting of District Level Implementation Committee (15 September 2025).
[11]*Ibid.*
[12]Release and utilisation data from the PRANA portal available at: url.
[13]Model Framework for conducting source apportionment studies: url.
[14]Air Quality Assessment, Trend Analysis, Emission Inventory and Source Apportionment Study in Jaipur City (January 2020) url.
[15]1st Steering Committee Meeting (10 June 2019) url.
[16]2nd National Apex Committee Meeting (15 March 2023) url.
[17]4th National Apex Committee Meeting (7 September 2024) url.
[18]2nd National Apex Committee Meeting (15 March 2023) url.
[19]4th Steering Committee Meeting (1 April 2022) url.
[20]2nd National Apex Committee Meeting (15 March 2023) url.
[21]5th Steering Committee Meeting (29 July 2022) url.
[22]4th National Apex Committee Meeting (7 September 2024) url.
[23]Census of India, 2011.
[24]Lok Sabha Unstarred Question No. 2701 (17 March 2025) url.
[25]Brief Note on Central Sector Scheme Control of Pollution, CPCB, url.
[26]NCAP: National Clean Air Programme, MoEF&CC (2019) url.
[27]CAAQM Dashboard, url.
[28]National Ambient Air Quality Standards, No. B-29016/20/90/PCI-I, MoEFCC (18 November 2009) url.
[29]WHO Global Air Quality Guidelines (2021) url.
[30]Lok Sabha Unstarred Question No. 2459 (4 August 2025) url.
[31]National Clean Air Programme (NCAP) to improve air quality in 131 cities by engaging all stakeholders (23 March 2023) url.
[32]Operational Guidelines for the implementation of the recommendations on ambient air quality component in the Million-Plus Challenge Fund for Million Plus cities/ Urban Agglomerations contained in Chapter 7 of the Fifteenth Finance Commission (FC-XV) Final Report (10 August 2021) url.
[33]378th Demand for Grants (23-24) of the MoEFCC by the Department Related Parliamentary Standing Committee on Science and Technology, Environment, Forests and Climate Change, url.
[34]Government launches National Clean Air Programme (NCAP) (10 January 2019) url.
[35]2nd Steering Committee Meeting (12 June 2020) url.
[36]XV Finance Commission, Report for the year 2020-21 (November 2019) url; XV Finance Commission, Report for 2021-26 (October 2020) url; XV Finance Commission Report, Vol. II, Annexure 7.8, url.
[37]Operational Guidelines for the implementation of the recommendations on ambient air quality component in the Million-Plus Challenge Fund for Million Plus cities/ Urban Agglomerations contained in Chapter 7 of the Fifteenth Finance Commission (FC-XV) Final Report (10 August 2021) url.
[38] Cities scoring between 80-100 receive full funding; between 60-80 receive 75% funding; between 50-60 receive 50% funding; between 40-50 receive 25% funding and below 40 receive no funding.
[39]50 per cent of the undisbursed amount is distributed to the performing cities in a manner that top performers (>10 per cent improvement) get 20 per cent of the amount, second best performers (8-10 per cent improvement) get 17.5 per cent and third best performers (6-8 per cent improvement) get 12.5 per cent.

ANNEXURE 1

FUND FLOW MECHANISM IN JAIPUR

Jaipur was initially designated as an NAC and received NCAP funds from the MoEF&CC in FY 19-20.[34] From FY 20-21 onwards the XV FC recommended direct budgetary support to Jaipur and certain other NACs that were million-plus cities. NACs that were included as million-plus cities by the XV FC were excluded from receiving funds from the MoEF&CC thereafter.[35] Hence, from FY 20-21 Jaipur began receiving funds directly from the FC to implement air pollution control measures.

The FC reports[36] and guidelines outline certain criteria for allocation and release of funds. They also provide clarity on institutional responsibility and fund flow processes: [37]

Allocation Criteria: Financial allocation to cities is determined based on population size. Between FY 21-22 and FY 25-26, 3.7 per cent of the total FC allocations were earmarked for Jaipur, amounting to a total of ₹455 crore. Further in FY 20-21, ₹165 crore was earmarked for the city.

Institutional responsibilities: The MoEF&CC monitors city-level performance and assesses whether urban local bodies (ULBs) have achieved their improvement targets. The Ministry of Housing and Urban Affairs (MoHUA) ensures cities conduct source analyses, update and implement action plans and comply with statutory guidelines. MoHUA also oversees waste management initiatives, given the linkages between waste disposal and air quality. Lastly, a state committee has been constituted with representation from the urban development, environment departments, and pollution control boards to monitor compliance and fund utilisation at the state level.

Fund Release Conditions: Funds are released based on progress across 4 key performance parameters i.e. (A) Strengthening institutional framework, (B) Source-wise cause analysis, (C) Progress on action plans/ statutory compliance, and (D) Quantification of improvements in air quality.

Table 1: Components of each parameter

A. Strengthening institutional framework	B. Source-wise cause analysis	C. Progress on action plans/ statutory compliance	D. Quantification of improvements in air quality
Operationalisation of air quality management cell	Air quality profiling to identify hotspots, locations for monitoring stations	Implementation and updation of action plans, monitoring PUC for vehicles	Reduction in particulate matter
IT enabled air quality data management system	Source apportionment study	Infrastructure planning	Increase in the number of good air days
Reviews of city action plans	Emission inventory and tracking system	Establishment of CAAQMS, Manual A QMS	
Public grievance redressal portal	Developing IT based emission inventory		
Emergency response system			
Awareness programmes			

Recognising that air quality improvement is a gradual process, the FC recommended a 1-year preparatory period for cities to establish necessary systems and infrastructure. During this phase, fund disbursement was assessed based on weighted parameters:

- Parameters A, B, and C: 10% weightage each
- Parameter D: 70% weightage

From FY 22-23 onwards, the entire 100% weightage is assigned to Parameter D, with the sole focus being improvements in air quality. Cities are evaluated on:

a. Reduction in particulate matter
b. Increase in the number of good air days

Cities achieving high scores on both criteria receive a performance score of 100 and are eligible for the entire fund release. Poor performance on one criterion reduces the score, making the city ineligible to receive full allocation. Unutilised allocations[38] are reallocated to higher-performing cities based on fixed percentages. [39]

Fund flow process: Once performance conditions are met, the MoEF&CC recommends the release of funds to eligible cities. The Ministry of Finance then transfers funds directly to the state government in a single instalment, for onward disbursement.

About ResGov

The Foundation for Responsive Governance (ResGov) is a Section 8 not-for-profit working to strengthen the capabilities of government and communities to ensure public initiatives reach the most vulnerable.

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