

Status of Infrastructure Projects

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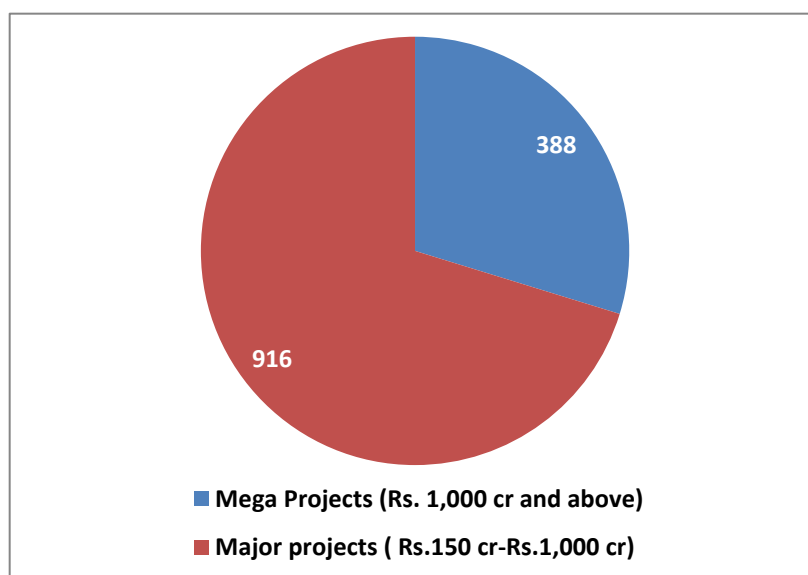
Infrastructure development –Status report

This report gives a brief on the status of 1,304 Central Sector Infrastructure projects costing Rs. 150 crore and above. The content of this report has been summarized from Monthly Flash reports and Quarterly Status Report of Central Sector projects. These reports are published by Infrastructure and Project Monitoring Division of MOSPI.

The number of projects under implementation has grown sharply from 727 in April 2014 to 1304 in February 2018 – an average growth rate of around 20% in the last 4 years.

Out of the total 1,304 projects under implementation, 388 are mega projects with an individual outlay of over Rs. 1,000 crore constituting 77% of the total project development outlay. The original cost of implementation for 1,304 projects is pegged at Rs. 16.2 lakh crore. These projects after latest evaluation are expected to cost Rs. 18.38 lakh crore, of which Rs. 6.36 lakh crore or 34.6% of original cost have been already incurred.

Graph 1 Project Classification

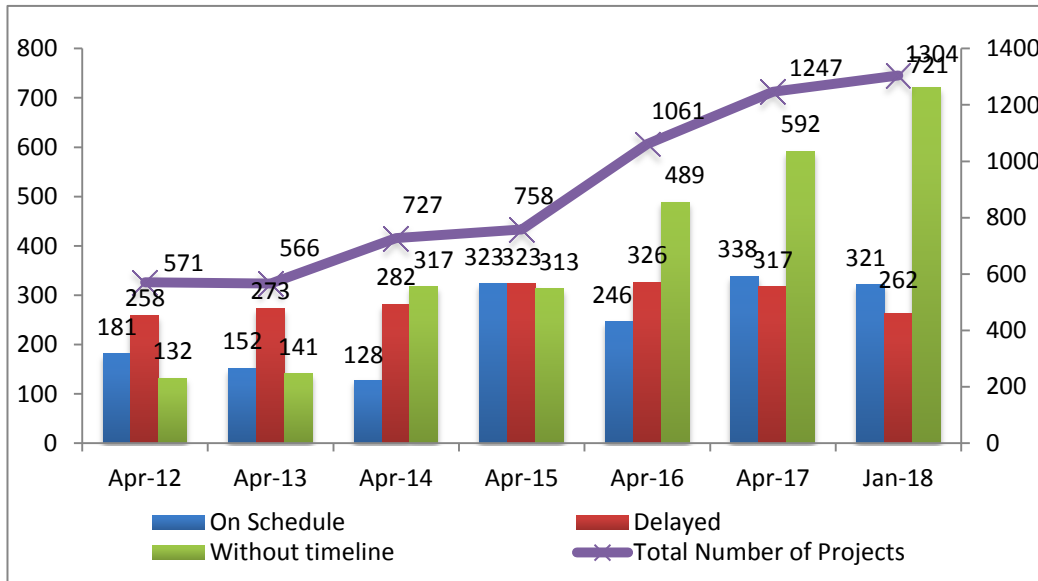


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A total of 343 projects were expected to be commissioned in 2017-18, out of which 82 projects with a cumulative expenditure of Rs. 1.27 lakh crore have been reported as completed as of end of February 2018. Power & transmission, atomic energy, petroleum & petrochemicals and urban development projects were the major sectors which witnessed most completions during the year.

Number of projects:

Chart 2: Total projects under implementation and completion timeline



Source: cspm.gov.in

- Total number of projects under implementation stood at 1304 for the month-ended February 2018 vs 1247 in April 2017.
- The anticipated cost for completion of these projects has grown from an original cost outlay of Rs. 16.22 lakh crore to Rs. 18.38 lakh crore. Cost overruns stood at Rs. 2.2 lakh crore, accounting for 13.4% of the total original costs. The costs incurred as of February 2018 is Rs. 6.36 lakh crore or 34.6% of the total anticipated cost of all projects.

Table 1
Summary of Projects

Total number of projects	1,304
Original cost	Rs. 16, 21, 994.6 crore
Anticipated/Revised cost	Rs. 18,38,702.4 crore
Number of projects on schedule	321
Delayed projects	262
Projects with cost overrun	343
Project w/t both time and cost overrun	100

The total number of projects being implemented (1304) is highest ever. Out of these projects:

- Delayed or projects without definitive timeline of completion make up for almost 75% of the total projects being implemented. 262 projects are delayed and 721 projects have no definitive timeline for implementation.
- *721 projects without definitive timelines:* These are unmonitored projects which are yet to report timelines or status of completion.
- There are 343 projects with cost overruns and 100 projects which are showing both cost overruns and delay.

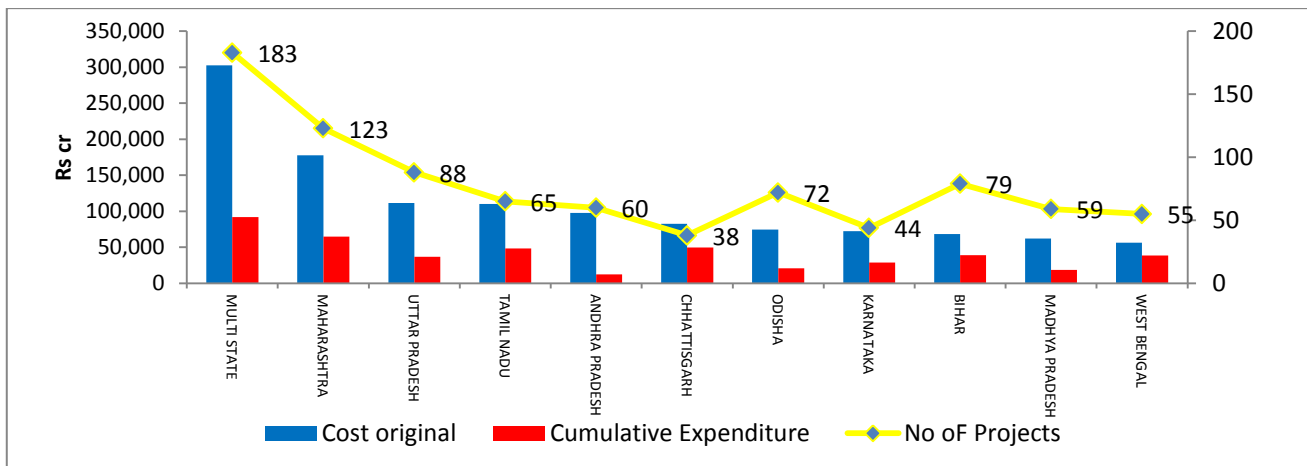
- Almost two-third of the costs required for completion of projects is yet to be spent which highlights the large funding requirement from the government in order to complete these projects.

Top 5 States by projects and total original cost outlay

Projects worth Rs. 3.01 lakh or 18.5% of the total anticipated costs of the projects has more than one state as beneficiary or is being implemented across geography of more than one state. These projects have been categorized under Multi-State projects.

- Maharashtra tops the list of states, accounting for 11% of projects by value being implemented in India. (This does not include value of projects which are a part of the multi-state projects). The state has 126 projects being implemented at a total original cost of Rs. 1.79 lakh crore.
- The other states in the top 5 category are Uttar Pradesh (6.9%), Tamil Nadu (6.8%), Andhra Pradesh (6%) and Chhattisgarh (5.1%). The top 5 states account for 36% of the total projects being implemented by value and 29% of the total number of projects being implemented.
- Other states with significant projects under implementation in value terms are Odisha (4.6%), Karnataka (4.5%), Bihar (4.2%), Madhya Pradesh (3.8%) and West Bengal (3.5%) accounting for close to 21% of the total outlay. The top 10 states put together account for 57% of the projects by value and 52.4% by the number of projects excluding the multi-state project value. These states are significant in terms of geographical size and constitute 68% of the total population of the country.

Graph 3
Number of Projects by State and Costs & Expenditure met



Source: PIO- CSPM.GOV.IN

Projects- By sector

The projects under implementation have been broadly divided across 16 sectors. The top 7 sectors accounted for almost 95% of the total projects. The top 7 sectors are:

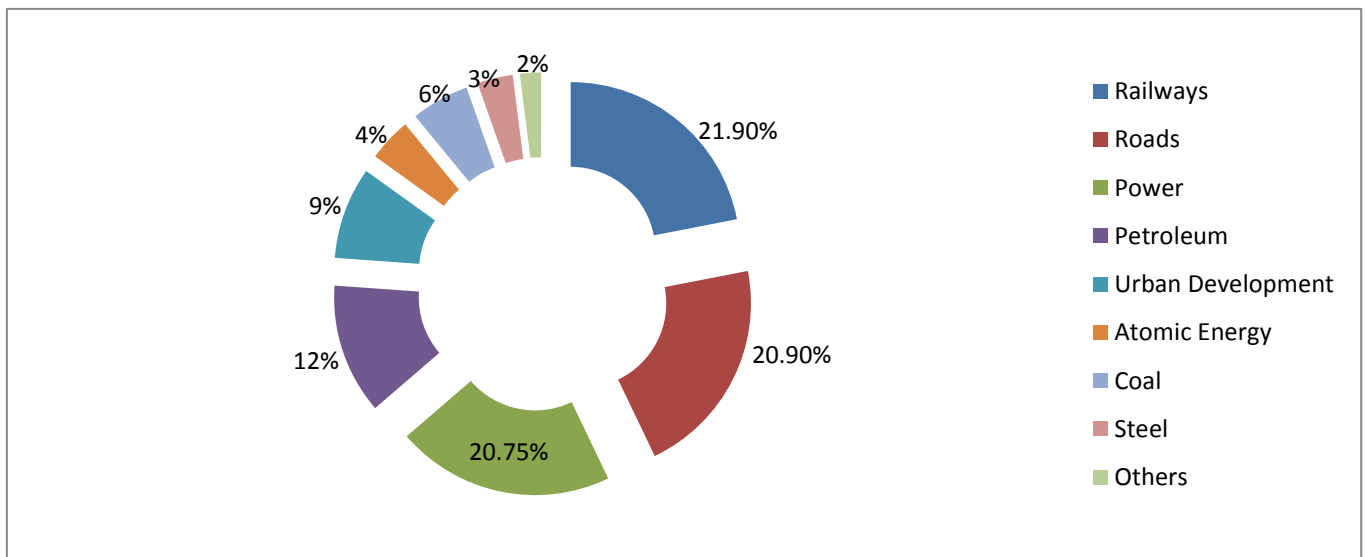
- Railways,
- Roads,
- Power,
- Urban Development,
- Atomic Energy,
- Petroleum, and
- Coal.

All these sectors have been focus area of the Central Government. Few sectors are facing shortfall in capacity like coal and network congestion for sectors like railways and power transmission. These projects are aimed at both capacity expansion as well as new infrastructure development across various regions.

In the report, cost overrun has been considered over the original costs and time overrun over latest schedule.

- The cost to be incurred on top 5 sectors namely Railways, Road, Power, Petroleum and Urban Development account for 85% of the total original costs.

Graph 4. Breakup of costs by Sector

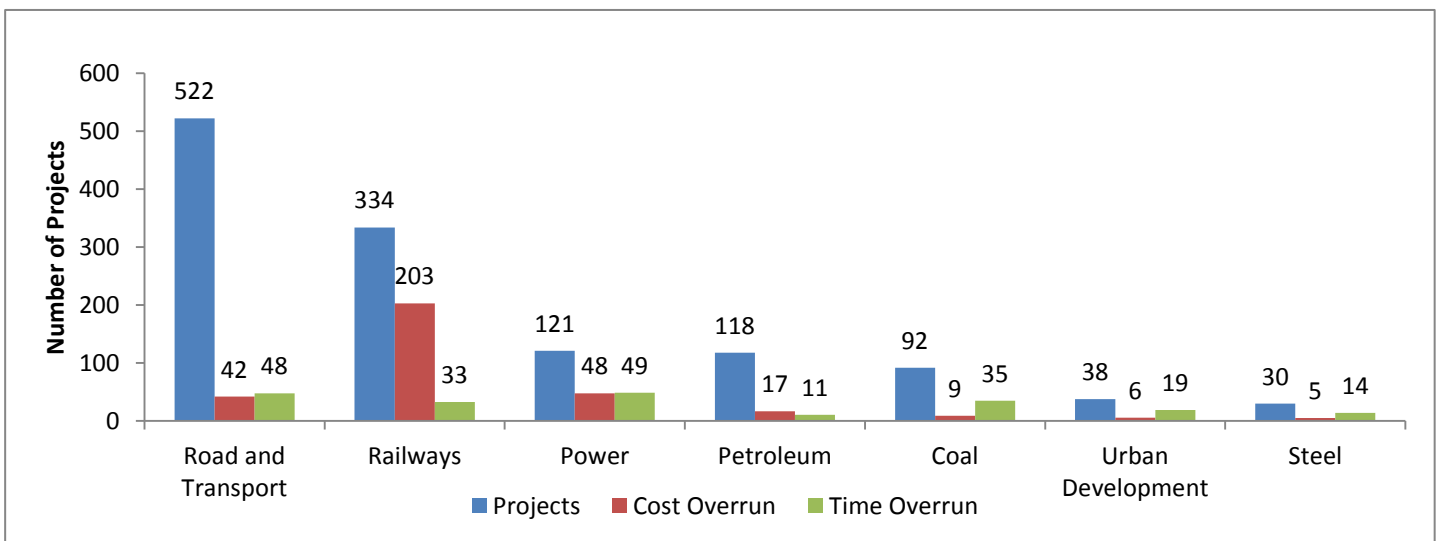


As reported in February 2018 by cspm.gov.in

- **Railways:** The sector accounts for 25.6% of the number of projects and 21% by value. Most of the projects in the sector is for doubling of lines especially in north-east, laying of new lines and addition of 3rd and 4th line for network decongestion. Interestingly, certain projects under implementation for extending routes and laying new lines, dates back to as old as 1981 like in case of Nagal Dam-Talwara line, Guna-Etawah (1986), Muzzaffarpur-Sitamarhi (1991) to name of few. These projects are still under implementation and not yet completed. 203 projects or 60% of the 334 projects in the sector are facing cost overrun. In terms of time-overrun, 33 projects are delayed w.r.t. revised schedule.
- **Power Sector:** The sector accounts for 9.3% of the number of projects under implementation and 21.8% of the projects by value. Projects mainly are for setting up thermal power plants, hydro power projects, grid strengthening and transmission network for the sector. 49 projects or 54% of the projects under implementation are facing time overrun w.r.t. latest schedule. 48 projects out of 121 projects being implemented are facing cost overrun.
- **Roads, transport and highways:** The sector accounts for most number of projects under implementation i.e. 522 or 40% of the total projects. The sector scores better in terms of cost overrun at 1.77% of the total outlay with 42 projects facing cost overrun and 48 projects are facing time overrun. Major projects are for -laning and strengthening and widening of existing road network.

- **Petroleum and Urban infrastructure** account for 12.5% and 8.8% of the total original costs of projects. These sectors have lesser cost overrun as a percentage of total costs at 0.77% and 3.53% respectively. The projects under implementation for petroleum sector include modernisation of refineries, expansion of existing refineries, field development, pipeline networks etc. Projects under Urban development projects include development of Metro rail in at least 5 tier 1/2 cities, construction of academic institutions, hospitals, public department offices etc.
- 19 projects out of the 38 projects in Urban Development face delay and 6 out of 38 face cost overrun.
- 11 out of 118 projects under petroleum sector face delay and 17 out of 118 face cost overrun.
- Graph 5 exhibits the total number of projects being implemented in the top 7 sectors and the number of projects facing time and cost overrun.

Graph 5. Number of projects by Sector and Timelines



Source: CSPM Report (Feb 2018)

- Few others sectors with a substantial outlay are Atomic Energy, Coal and Steel, together accounting for 13% of the total original costs. The remaining 8 sectors account for just 2% of the total estimated costs on 1,304 projects. These remaining sectors include Defence, Health and Family welfare and heavy industries.

Factors causing delay and cost overrun

The factors affecting project implementation can be divided into two:

Reasons for time overrun:

- Delay in land acquisition.
- Environmental clearances
- Lack of infrastructure support and linkages
- Financing delay
- Delay in detailed engineering and its finalization
- Changes in scope, contractual issues and geographical changes
- Delay in tendering and law & order issues.
- Projects running behind schedule w.r.t. original schedule

Causes of cost escalation

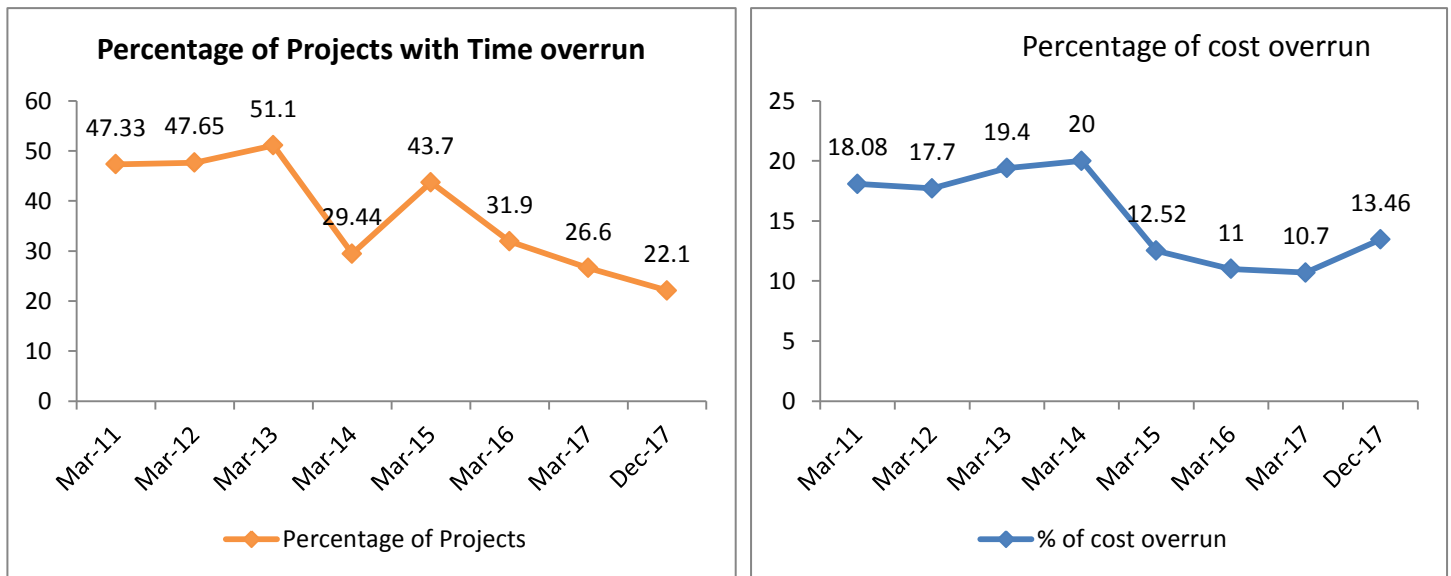
- Cost under-estimation
- Escalation in environmental safeguarding, land acquisition and rehabilitation.
- Change in scope of projects
- Other factors being change in prices/inflation, monopolistic pricing by vendors, time overrun, etc

The Government has taken various steps to reduce time and cost overruns. Significant measures include

- Setting up online monitoring system;
- Setting up standing committees in concerned ministries and fixing responsibility for project timeline and cost timeline;
- Review of projects by ministries and administrative authorities;
- Creating mechanism between state and central authority for better coordination.

The impact of these measures has been favourable and the trend of cost and time overrun over the last 8 years is shown in Graph 6.

Graph 6. Time overrun and Cost overrun trend (2011-17)



Source: CSPM report

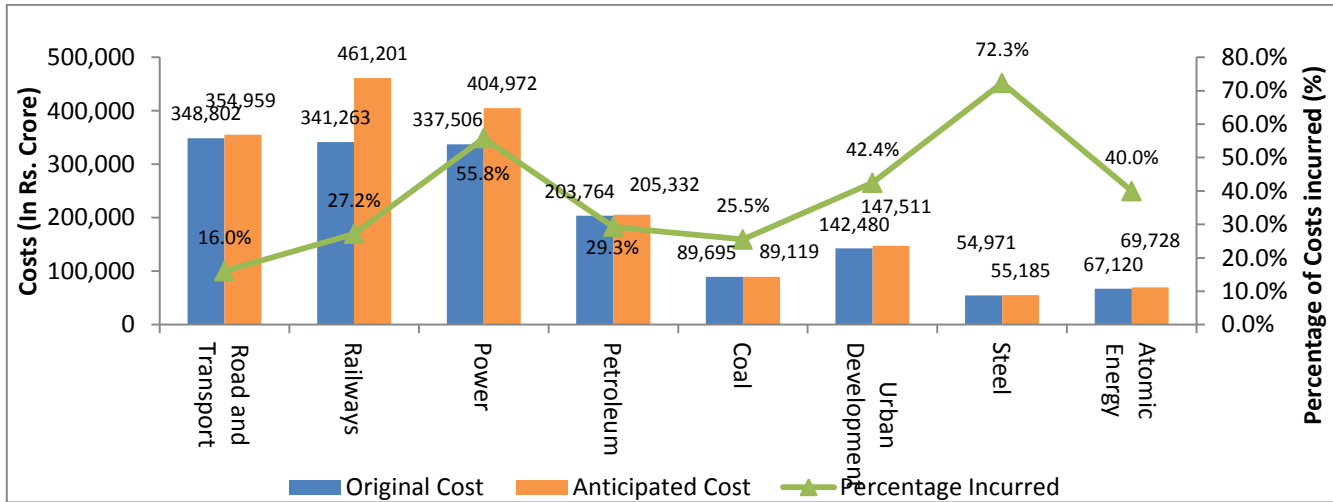
- In terms of time delay, the trend has been positive with percentage of delayed projects declining to an all-time low of 22.1% as on December 2017.
- Cost overrun trend has settled higher in December 2017 at 13.5% to the previous two years which witnessed the same touching lows of 10.7-11%.

Project outlay met:

- Among sectors with substantial costs already met, cumulative expenditure in power sector has been the highest, with close to Rs. 2.25 trillion met or 55.8% of the anticipated cost already met as shown in graph 7.
- Among the large sectors, Roads, highways and transport sector has the lowest cumulative expenditure incurred at 16%.

- Sectors namely railways, roads, petroleum and coal projects have substantial costs (over 70% of the anticipated costs) yet to be spent.
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Graph 7. Project outlay by Sector and Cumulative expenditure met

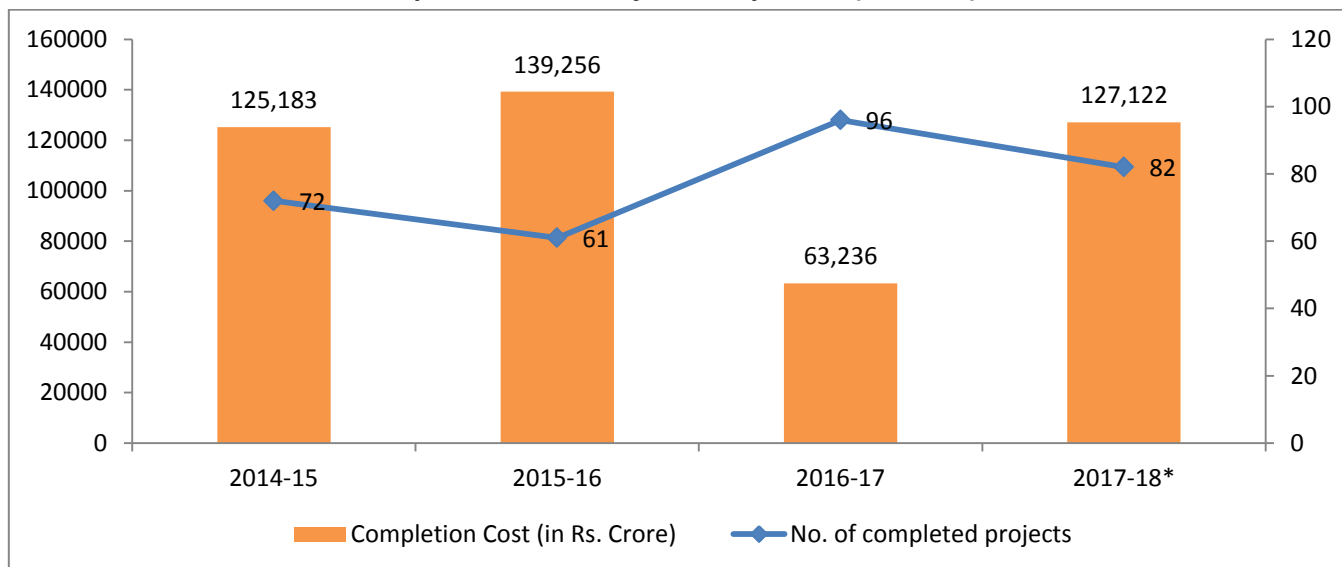


Source: CSPM Reports

Number of projects completed:

Total number of projects completed in FY15, FY16 and FY17 is shown in Graph 8. Figures for FY18 are for April-February 2018. FY 17 reported a sharp decrease in cost of projects completed, but the same recovered in FY18.

Graph 8. Annual Project Completion (FY15-18)



*Data for April-February 2018

CARE Ratings view:

- With significant States going for elections and the General election approaching, the need to complete a bulk of these projects would be the key focus. Rajasthan, Madhya Pradesh, Chhattisgarh, Maharashtra, Uttar Pradesh and Bihar would be among the focus states,

witnessing higher project completion by March 2019. These states together account for over 1/3rd of the projects under implementation.

- The remaining expenditure to be incurred on 1,304 projects under implementation have grown to Rs. 12.1 lakh crore. The cumulative expenditure incurred (table 2) to the total cost of projects has fallen from 49.4% as on April 2014 to 39.7% in April 2017. As of February 2018, the ratio stood at approximately 35%.

Table 2. Project Costs, Expenditure and Annual Outlay

	Projects (No.)	Total Cost	Cumulative Expenditure Incurred	Yearly Outlay
April-June 2014	738	11,46,583	5,66,202	94,459
April-June 2015	789	13,15,061	5,86,520	1,06,854
April-June 2016	1173	15,43,063	6,50,474	1,34,415
April-June 2017	1265	17,57,681	6,97,084	1,41,341

(All costs and expenditure in Rs. crore) Source: cspm.gov.in

- Sectors namely Roads and highways, Railways, Power and Coal require higher yearly outlay in order to meet over Rs. 8.8 trillion worth of remaining costs to be incurred. These sectors require urgent attention in order to address the various issues impacting them which include network expansion in railways, power evacuation infrastructure, improving mining capacity and logistics of coal etc.
- An agency for approvals and streamlining processes like land acquisition and tendering of public infrastructure projects has been a long-standing demand. Factors like land acquisition require more enabling policies which is among the key challenge for timely implementation of infrastructure projects.