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## Status of Central Infrastructure Projects

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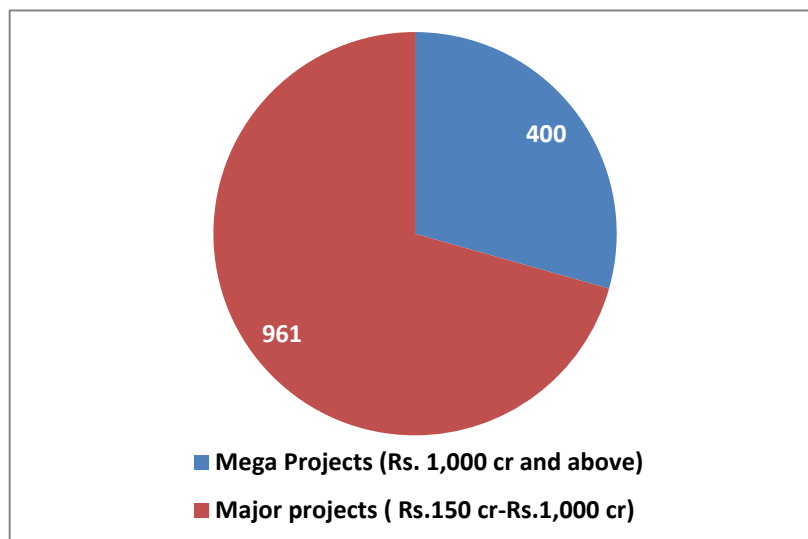
### Infrastructure development –Status report

This report gives a brief on the status of 1,361 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 1,361 in August 2018 – an average growth rate of around 20% in the last 4 years.

Out of the total 1,361 projects under implementation, 400 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 1,361 projects is pegged at Rs. 16.78 lakh crore. These projects after latest evaluation are expected to cost Rs. 20.16 lakh crore, of which Rs. 7.68 lakh crore or 38.1% of anticipated cost have been already incurred.

Graph 1 Project Classification

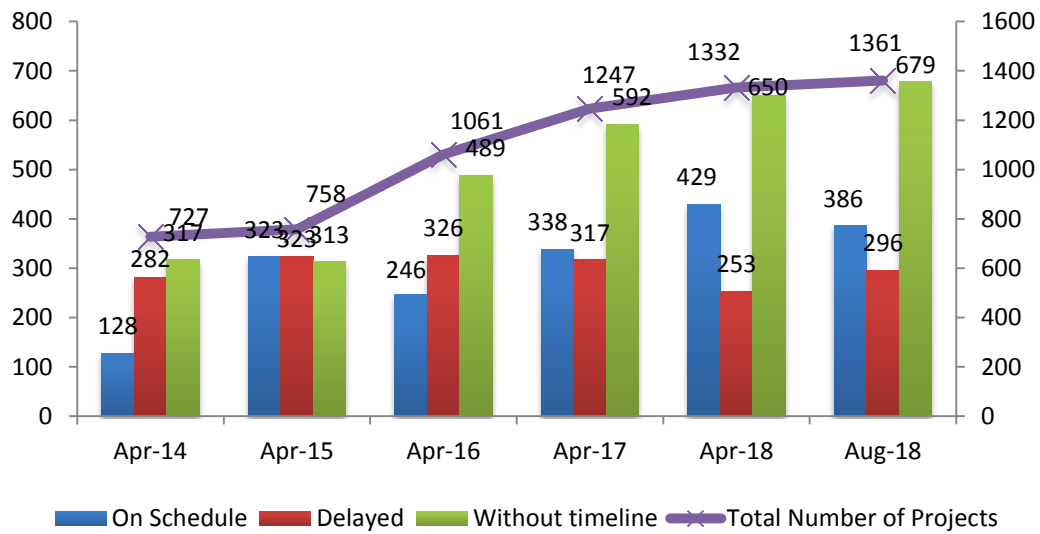


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Steel, Power & transmission, atomic energy, petroleum & petrochemicals and urban development projects were the major sectors which witnessed most completions during the year. 34 major projects have been completed between April-July 2018.

Number of projects:

Graph 2: Total projects under implementation and completion timeline



Source: cspm.gov.in

- Total number of projects under implementation stood at 1361 for the month-ended August 2018 vs 1247 in April 2017.
- The anticipated cost for completion of these projects has grown from an original cost outlay of Rs. 16.78 lakh cr to Rs. 20.16 lakh crore. Cost overruns stood at Rs. 3.38 lakh cr, accounting for 20% of the original costs. The costs incurred as of February 2018 is Rs. 7.86 lakh crore or 38.1% of the total anticipated cost of all projects.

Table 1 Summary of Projects

<b>Total number of projects</b>	<b>1,304</b>
Original cost	Rs. 16, 78, 634 cr.
Anticipated/Revised cost	Rs. 20,16,360 cr.
Number of projects on schedule	386
Delayed projects	296
Projects with cost overrun	358
Project w/t both time and cost overrun	66

Compiled by CARE Ratings

The total number of projects being implemented (1361) is highest ever. Out of these projects:

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

- Delayed or projects without definitive timeline of completion make up for almost 71% of the total projects being implemented. 296 projects are delayed and 679 projects have no definitive timeline of implementation.
- *679 projects without definitive timelines:* These are unmonitored projects which are yet to report timelines or status of completion. This also indicates more projects being added in the pipeline and the timelines will be definitive going forward.
- There are 358 projects with cost overruns and 66 projects which are showing both cost overruns and delay. Even though the number of projects with cost overruns has risen marginally, the number of projects with both cost & time overrun has reduced by almost 1/3<sup>rd</sup>.

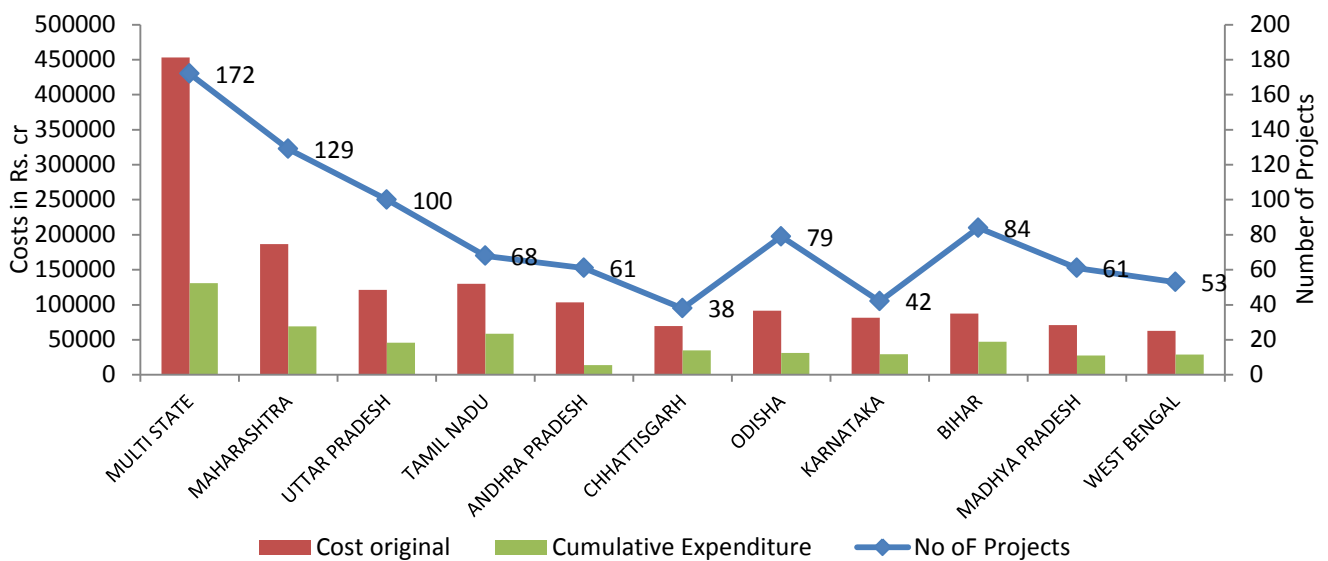
- Almost two-third of the costs required for completion of projects is yet to be spent which highlights the large funding requirement from the government in order to complete these projects.

**Top 5 States by projects and total original cost outlay**

Projects worth Rs. 4.53 lakh or 22.5% 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 9.2% 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 129 projects being implemented at a total original cost of Rs. 1.72 lakh crore.
- The other states in the top 5 category are Uttar Pradesh (6%), Tamil Nadu (6.5%), Andhra Pradesh (5.1%) and Odisha (4.3%).
- The top 5 states account for 30.2% 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 Karnataka (4%), Bihar (4.3%), Madhya Pradesh (3.5%), West Bengal (3.1%) and Chhattisgarh (3.5%).

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



Source: PIO- CSPM.GOV.IN

**Projects- By sector**

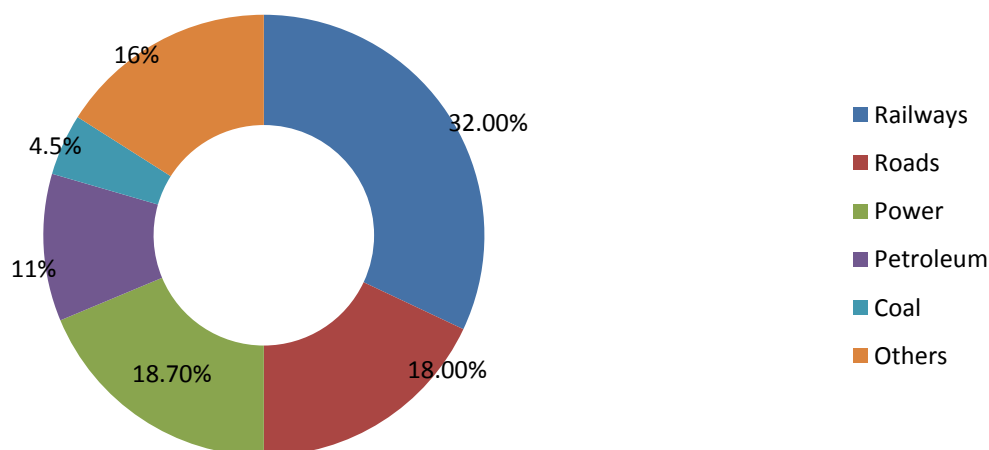
The projects under implementation have been broadly divided across 16 sectors. Five sectors accounted for almost 84% of the total projects by value:

- Railways,
- Roads,
- Power,
- Petroleum, and
- Coal.

The five major sectors have been the focus area of the current Union Government. Sectors like coal have been hampered by lack of evacuation infrastructure and capacity. Other sectors like railways and power transmission have been facing network congestion and inadequate investments over a prolonged period of time. The projects are aimed at both capacity expansion as well as new infrastructure development across various regions.

- The cost to be incurred on top 5 sectors namely Railways, Road, Power, Petroleum and Urban Development account for 84% of the total anticipated costs.

Graph 4. Breakup of costs by Sector

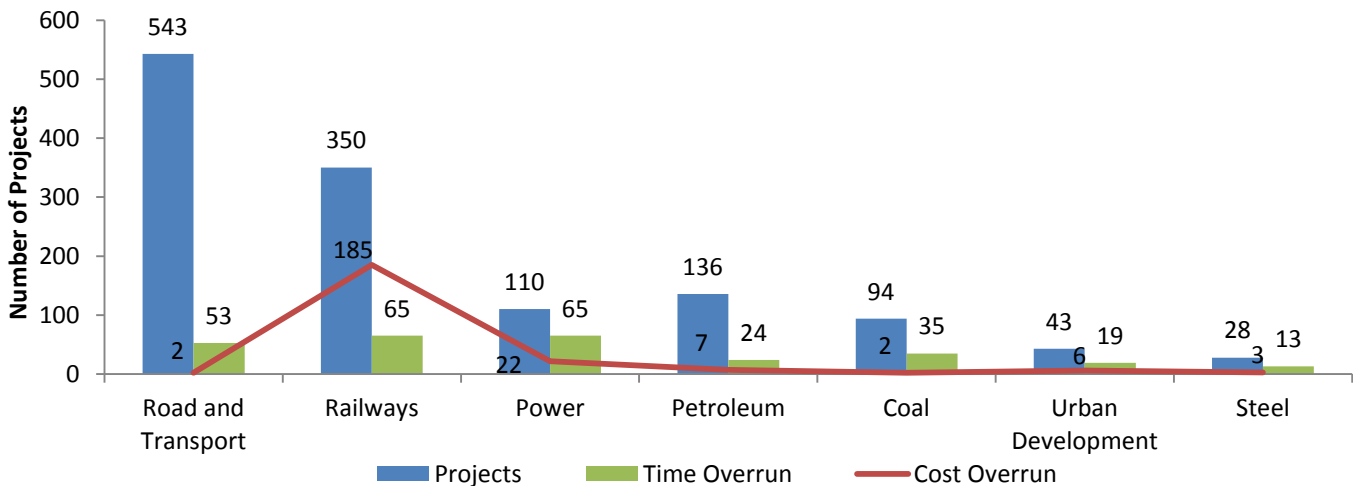


As reported in August 2018 by cspm.gov.in

- **Railways:** The sector accounts for 32% of the number of projects and 32% by value. Most of the projects in the sector are 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. 185 projects or 53% of the projects in the sector are facing cost overrun. In terms of time-overrun, 65 projects are delayed w.r.t. revised schedule which is 85% higher than the numbers reported In February 2018. Overall, 72% of the projects are in the early implementation or delayed.
- **Power Sector:** The sector accounts for 8.1% of the number of projects under implementation and 18.7% of the projects by value. Projects under implementation consist of setting up of thermal power plants, hydro power projects, grid-strengthening and transmission network development. 65 projects or 60% of the projects under implementation are facing time overrun w.r.t. latest schedule. 22 project or 20% of projects being implemented are facing cost overrun. The overrun are mainly due to land acquisition issues, inability to achieve financial closure and environmental clearances.
- **Roads, transport and highways:** The sector accounts for most number of projects under implementation i.e. 543 or 40% of the total projects. The sector faces lesser cost overrun at 1.7% of the total outlay with 31 projects and 53 projects are facing time overrun. Major projects are for 4-laning and strengthening and widening of existing road network.
- **Petroleum** accounts for 11% of the total cost of projects under implementation. These sectors have lowest cost overrun as a percentage of total costs. The projects under implementation for petroleum sector include modernisation of refineries; expansion of existing refineries, field development, and pipeline network etc. 24 out of 136 projects under petroleum sector face delay and 7 out of 136 face cost overruns.

- 19 projects out of the 43 projects in Urban Development face delay and 6 out of 43 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 (Aug 2018)

**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**

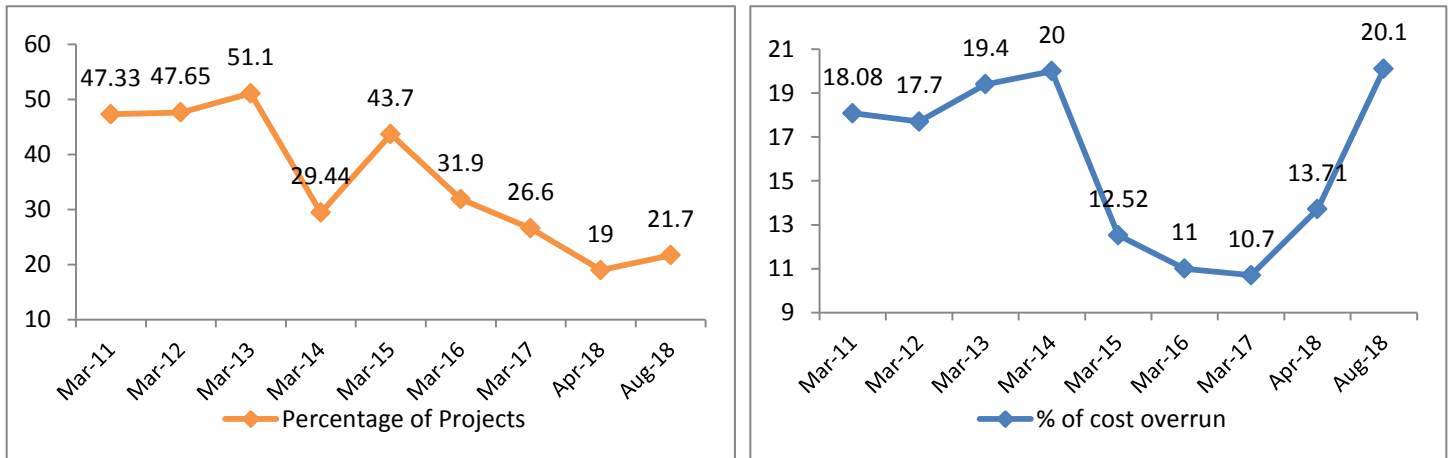
- Cost under-estimation
- Escalation in environmental safeguarding, land acquisition and rehabilitation.
- Change in scope of projects
- Other factors being change in prices/inflation, monopolistic pricing by vendors, time overrun, etc

**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.
- Ministry of Roads, Transport and Highways

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 (2011-18)



Source: CSPM report

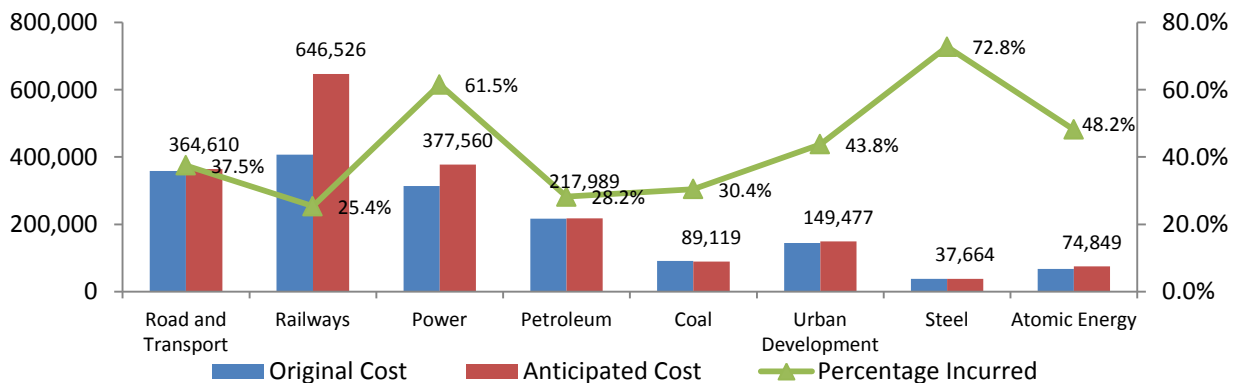
- In terms of time delay, the trend has been negative with percentage of delayed projects increasing to 21.7% as of August 2018 vs 19% in April 2018. The overall trend though has been positive.
- Cost overrun trend has settled higher in August 2018 at 20.1% to the previous two years which witnessed decline in cost overrun. This is indicative of more number of projects undergoing implementation and reaching completion stage.

**Project outlay met:**

- Among sectors with substantial costs already met, cumulative expenditure in power sector has been the highest, with close to Rs. 2.32 trillion met or 61.5% of the anticipated cost already met ( graph 7).
- Among the large sectors, Railways has the lowest cumulative expenditure incurred at 25%.
- Mining sector has the lowest cumulative expenditure among all sectors, at Rs. 426 cr vs an anticipated cost of expenditure of Rs. 6,912 cr.

Sectors namely railways, petroleum and coal projects have substantial costs (over 70% of the anticipated costs) yet to be spent. Investments in the steel sector have shown substantial improvement.

Graph 7. Project outlay by Sector and Cumulative expenditure met

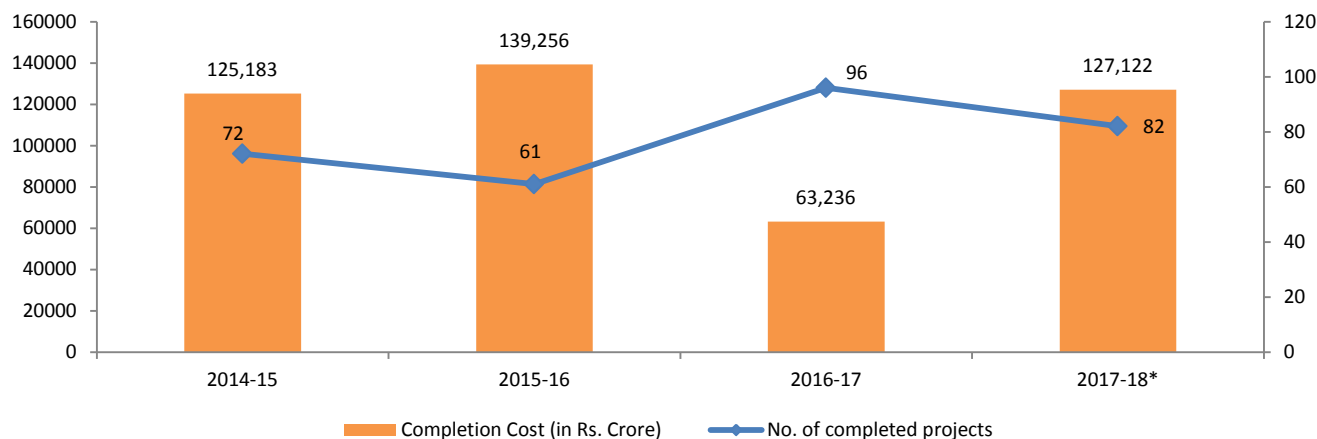


Source: CSPM Reports

**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 1,361 projects under implementation has grown to Rs. 12.5 lakh crore. The cumulative expenditure incurred (table 2) to the total cost of projects has fallen from 49.4% as on April 2014 to 38.1% in August 2018. 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
April-August 2018	1361	20,16,360	7,68,186

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

- Sectors namely Roads, Railways, Power and Coal require higher yearly outlay in order to meet over Rs. 9.2 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.

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