SECTOR UPDATE

INFRA SCAPE

National Infra Pipeline: Aggressive intent, but funding key

India Equity Research | Infrastructure - Construction

The government ended 2019 with a bang by rolling out the National Infrastructure Pipeline (NIP). With a vision to spend INR100tn on infra over FY20-25 (~2x FY14-19 investments), NIP sets the ball rolling to achieve the objectives of: (a) improving India's global competitiveness by creating new & upgrading existing infra; and (b) initiating a virtuous cycle of higher investments, growth & employment generation in the economy. We view this as a positive step since a structured approach with active participation of all stakeholders is paramount to achieve substantial scale-up in infra spending. That's said, we believe, funding the mammoth plan in light of the current economic headwinds will be a key monitorable.

Genesis of the NIP

Prime Minister Narendra Modi had earlier highlighted that INR100tn will be invested on infra over the next five years. To achieve this goal, a task force was set up to: (a) identify infra projects that can be initiated over FY20-25; (b) estimate annual infra investments; (c) guide ministries in identifying financing sources; and (d) suggest measures for monitoring projects to minimise cost/time overruns. Over the past four months, 70 meetings have resulted in the NIP which aims to: (a) provide inclusive growth & create jobs; (b) enhance the level of economic activity & improve the government's revenue base; (c) boost developers' confidence by providing project pipeline; and (d) build investor confidence through better project preparation & active project monitoring.

Deep dive into NIP

NIP projects a peaking of investment over FY20-22 (~60% of overall investments), post which the capex trajectory will taper; however, there may be some spillage to FY23-25. Power remains the biggest sector with 22% share in investments, though it is a marked decline from 32% over FY08-19. Other major sectors are roads (19% versus 18%), railways (13%/10%), urban infra (16%/13%) and irrigation (8%/9%). Funding will be a key monitorable since the plan assumes an increase in budgetary support (as a % of GDP) from 0.73% in FY19 to 1.11% in FY25, along with nominal GDP growth of ~12.5% over FY22-25.

Outlook: Well begun, now on to execution

At a time when muted economic growth and sluggish infra spending have cast a pall of gloom on infra companies, NIP is a much needed saviour to change the narrative on infra investments in India. While the intent is right, the government now needs to focus attention on resource mobilisation, getting requisite clearances and enhancing coordination between various stakeholders. Potential beneficiaries of this opportunity include KNR Constructions (**BUY**), PNC Infratech (**BUY**) and NCC (**BUY**).

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NIP: Vision to build world-class infra

The PM had earlier highlighted that INR100tn will be invested on infra over the next five years. To achieve this goal, a task force was set up to develop a vision for infra in 2025 towards improving the ease of living or the physical quality of life for each individual in the country. This has culminated into the development of a five-year plan of infra in key sectors with an objective to create a fast-track institutional, regulatory and implementation framework for infra.

Task force for infra development

In his Independence Day speech 2019, the PM had highlighted that INR100tn will be invested on infra over the next five years. To achieve this goal, a task force was set up to: (a) identify infra projects that can be initiated over FY20-25; (b) estimate annual infra investment; (c) guide ministries in identifying financing sources; and (d) suggest measures for monitoring projects to minimise cost/time overruns.

The underlying vision for the exercise is to develop infra services that raise the quality of life and ease of living in India to global standards. Major goals in this regards are: (a) providing a positive & enabling environment for significant private investment in infra; (b) designing, delivering & maintaining public infra projects to meet efficiency, equity & inclusiveness goals; (c) creating a fast-track institutional, regulatory & implementation framework for Infra; and (d) benchmarking infra performance to global best practices & standards.

The goals by sector are given below:

- **Affordable and clean energy**: 24x7 power availability for all –reliable transmission and distribution infra.
- **Digital services access for all**: (a) 100% population coverage for telecom & high quality broadband services for socio-economic empowerment of every citizen; and (b) digital payments & e-governance infra for delivery of banking & public services.
- **Convenient and efficient transport and logistics**: (a) Enhanced road connectivity to remotest areas with extensive charging & on-road traction infrastructure for electric vehicles; (b) world-class stations & fully integrated rail network with connectivity to remote regions with focus on safety; (c) airport & related infra to enable international & regional connectivity to achieve passenger & cargo traffic on the vision of NCAP 2016; (d) port & waterway infra focused on reducing logistics time & cost for foreign and domestic trade as per the Sagarmala National Perspective Plan 2016; and (e) urban mobility – MRTS and bus connectivity within 800metres of homes in more than 50 cities
- **Housing and water supply**: (a) Housing for all by 2022 – PMAY; negligible slum population; and (b) all households to have piped water meeting national standards by 2024.
- **Doubling farmer income**: (a) Increased irrigation & micro-irrigation coverage; and (b) integrated agro-logistics systems from farm-gate to end consumers –storage, processing and packing, transportation, market and digital infra for agriculture produce

- **Quality education**: World-class educational institutes for teaching and research, technology driven learning meeting GER target of 35% by 2025 as per the draft National Education Policy, 2019.
- **Healthcare**: (a) Superior accessible primary, secondary and tertiary healthcare infra facilities across India to meet NHP 2017 goals; (b) medical, para-medical education in infra meeting manpower needs by 2020 & CHVs by 2025 as per IPHS norms.
- **Sustainable and smart cities**: (a) Waste water collection, treatment/recycling to national standards in all towns across India; and (b) Smart City infra for mobility, entertainment, business, high quality river-front, safety & resilience.

Key benefits of developing NIP will be:

- **Economy:** Well-planned NIP will enable more infra projects, grow businesses, create jobs, improve ease of living and provide equitable access to infrastructure for all, making growth more inclusive.
- **Government:** Well-developed infrastructure enhances level of economic activity, creates additional fiscal space by improving revenue base of the government and ensures quality of expenditure focused in productive areas.
- **Developers:** Provides better view of project supply, provides time to be better prepared for a project, reduces aggressive bids/ failure in project delivery, ensures enhanced access to sources of finance as result of increased investor confidence.
- **Banks/ financial institutions (FIs)/ investors:** Builds investor confidence as identified projects are likely to be better prepared, exposures less likely to suffer stress given active project monitoring, thereby less likelihood of NPAs.

The NIP was developed by:

- A best-effort basis by aggregating information provided by various stakeholders including line ministries, departments, state governments and the private sector across infrastructure sub-sectors.
- A bottom-up approach was adopted wherein all projects under construction, proposed greenfield projects, brownfield projects and those at the conceptualisation stage were sought to be captured. Investment details of FY19-20 are estimates, while those for FY21 to FY25 are projections.

Deep dive into NIP

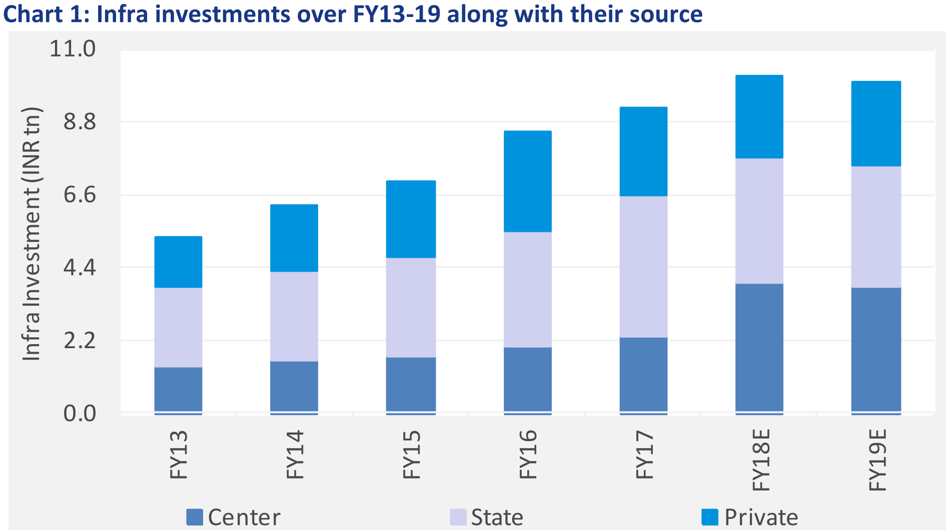
NIP envisages INR100tn expenditure on infra over FY20-25 (~2x investment over FY14-19). The plan is front-ended with investment peaking over FY20-22 (~60% of overall investments), post which it will taper. Power remains the biggest sector, followed by roads. Funding will be key monitorable since the plan assumes not only increase in budgetary support (as % of GDP) from the current level, but also a significant ramp up in nominal GDP growth rate.

A look at previous decade

Investments in infra during FY08-17 were estimated at ~UNR60tn; of this, ~INR24tn was spent during FY08-12 (11th Five-Year Plan), while the balance ~INR36tn happened over FY13-17 (12th Five-Year Plan). However, infra investments as a proportion of GDP fell from ~7.0% during the 11th Five-Year plan to ~5.8% during the 12th plan.

Infra investments for FY18 and FY19 are estimated at ~INR10.2tn and ~INR10tn, respectively.

Chart 1: Infra investments over FY13-19 along with their source

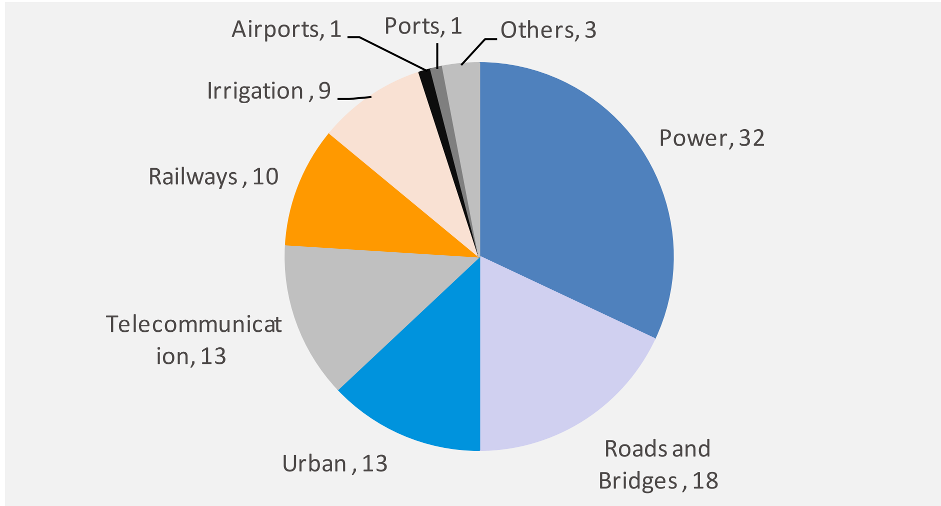


Source: Government documents, Edelweiss research

Note: investments mentioned are at current prices

Over this entire time frame, while the public sector (Centre and states governments) contributed ~65% of investments, the share of private sector was ~35%.

Chart 2: Power and roads dominated infra investments over FY08-19



Source: Government documents, Edelweiss research
Note: investments mentioned are at current prices

Power and roads and bridges cornered bulk of investments (~50%) over FY08-19. These, along with urban, digital infra and railways sub-sectors, constituted ~85% of total infra investment during the period.

The Centre and states were major funding sources for sectors such as power and roads & bridges, with moderate participation from private sector. Digital sector investments were largely driven by the private sector, while investments in irrigation were predominantly made by state governments.

NIP debuts with promise of sizeable ramp up in investments

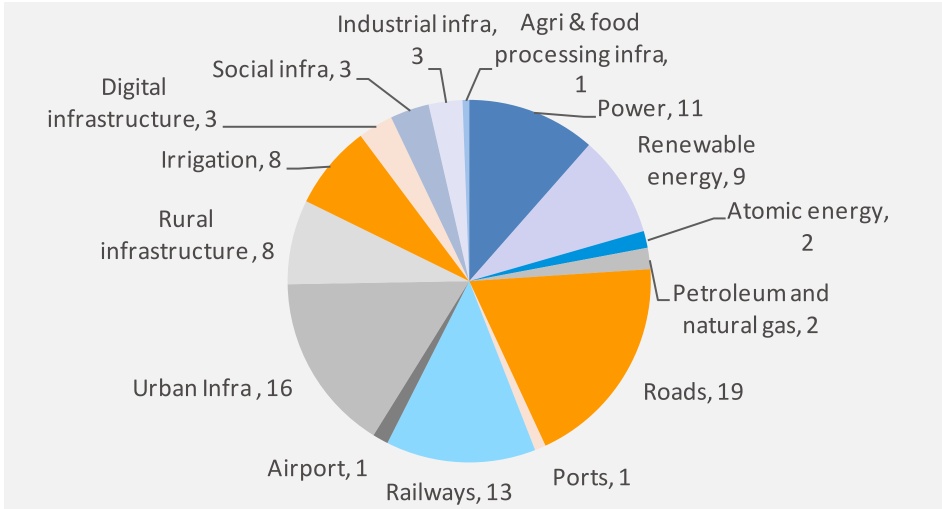
As per NIP, total project capital expenditure in infra sectors in India during FY20-25 is estimated at ~INR102tn. Being ~2x investments over the FY14-19, this represents a quantum jump in infra outlay.

Table 1: FY21 and FY22 to witness peak of investments **(INR bn)**

Ministry/Department	FY20	FY21	FY22	FY23	FY24	FY25	No phasing	FY20 -25
Energy	173	335	322	326	346	325	626	2,454
Power	104	120	101	82	74	69	626	1,176
Renewable energy	31	151	144	170	217	217	0	930
Atomic energy	11	21	28	33	33	28	0	154
Petroleum and natural gas	28	44	48	42	23	11	0	195
Roads	324	370	344	237	229	325	135	1,964
Railways	133	263	309	274	221	168	0	1,369
Ports	12	16	19	15	7	9	22	101
Airport	19	22	25	21	25	5	26	143
Urban - AMRUT, SMART Cities, MRTS,	295	414	327	161	146	109	177	1,629
Irrigation	102	169	158	108	93	64	80	773
Total rural infrastructure	140	177	211	111	107	27	0	773
Water and sanitation	36	61	101	84	80	0	0	362
Rural infrastructure	104	116	110	27	27	27	0	411
Digital infrastructure	84	64	55	40	39	39	0	320
Total agriculture and food processing infra	9	8	7	6	6	5	19	61
Agriculture infrastructure	8	8	7	6	6	5	14	54
Food processing industries	0	1	0	0	0	0	0	1
Food and public distribution	0	0	0	0	0	0	5	5
Social infrastructure	55	72	77	46	35	19	0	357
Higher education	13	18	23	19	17	5	23	118
School education	5	7	7	6	7	6	0	38
Health and family welfare	34	44	43	18	9	6	14	169
Sports	1	1	1	1	1	1	1	8
Tourism	2	2	3	2	1	1	0	24
Total industrial infra	17	41	43	34	23	10	139	307
Industries and internal trade	16	38	41	33	22	10	139	299
Steel	2	2	2	2	0	0	0	8
Grand Total	**1,364**	**1,950**	**1,896**	**1,380**	**1,278**	**1,106**	**1,222**	**10,251**

Source: Government documents, Edelweiss research

Chart 3: Urban infra and railways share improved, power and digital infra's fell



Source: Government documents, Edelweiss research

Roads, urban infra & housing, railways, power (renewable and conventional) and irrigation comprise ~80% of NIP.

While power still remains the biggest sector as far as share of investments is concerned, its share has declined from 32% during FY08-19 to 22% now (including renewable and atomic energy). Roads still remains the second biggest segment even as its share has increased marginally from 18% to 19%.

Urban infra (now at 16%) and railways (now at 13%) have posted 3% increase in their share compared to FY08-19.

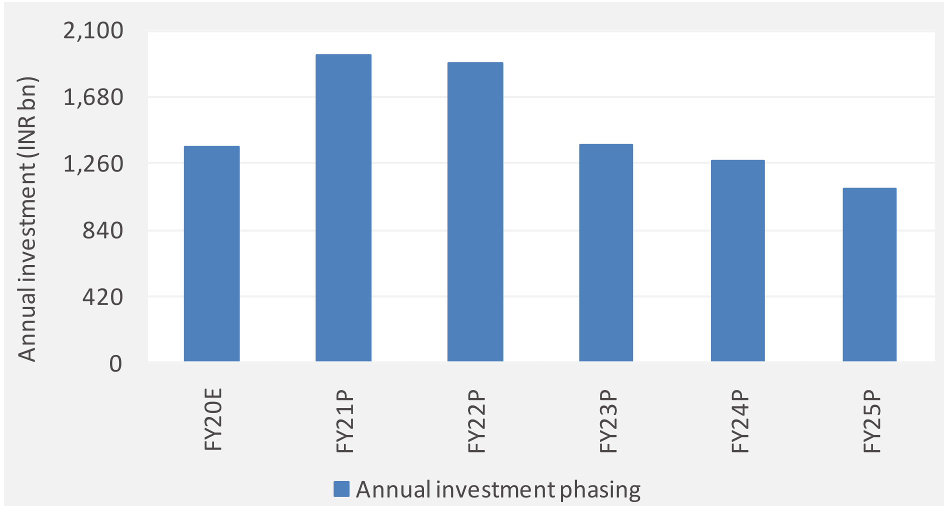
The biggest decline has been in telecom/digital infra where the share of investments has plunged from 13% to 3%; irrigation segment's share has fallen marginally from 9% to 8%.

NIP is front-ended, though some slippage likely

Of the total ~INR102tn, year-wise phasing of ~INR12tn has not been provided. For the balance ~INR90tn, the first three years i.e., FY20-22 contribute bulk of investments at ~INR52tn; this amounts to ~60% of overall investments. However, there are chances of some spillage to FY23-25.

The balance ~INR38bn investments accrue over FY23-25.

Chart 4: FY21 and FY22 to witness peak of investments

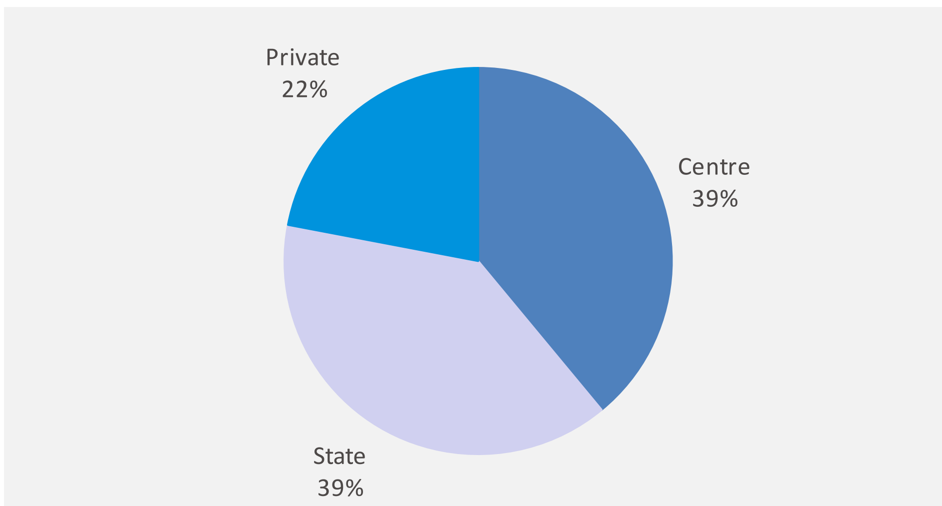


Source: Government documents, Edelweiss research

Note: Excludes the power sector and some states with phasing not provided

Note: Large states yet to provide adequate data are Gujarat, West Bengal, Rajasthan and Bihar

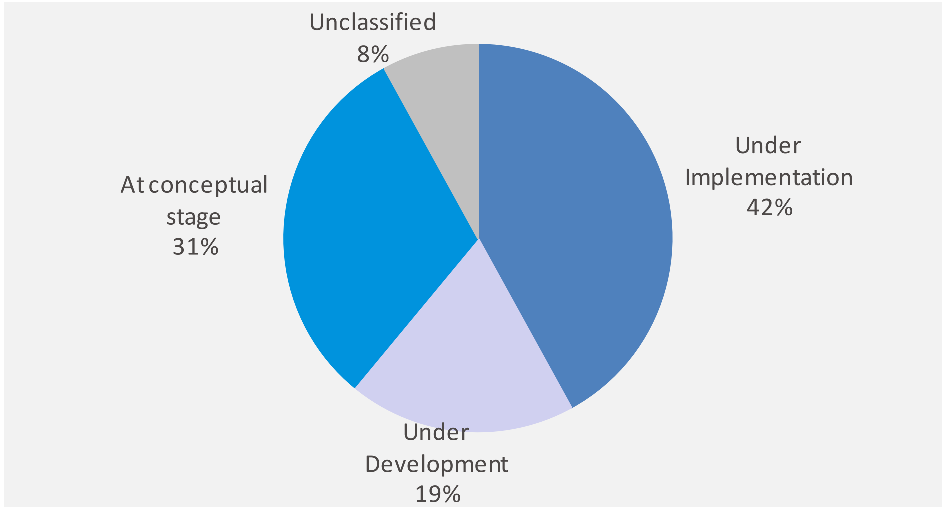
Chart 5: Public sector contributes bulk of investments



Source: Government documents, Edelweiss research

Stressed balance sheets of the private sector means that the public sector is expected to pick up bulk of the tab as far as infra investments in India are concerned.

Chart 6: Significant quantum of projects already under implementation



Source: Government documents, Edelweiss research

Note: Power sector data has no classification provided

NIP can be sub-divided as per implementation status of projects:

- Significant quantum of projects at ~42% is **already under implementation**; these include expressways, national gas grid and PMAY-G.
- P**rojects under development** at ~19% include urban infra, roads, and renewable energy. Key projects include those in renewable energy under the 175GW by 2022 mission.
- Around a third of the projects are **at concept stage**; key projects include renewable energy beyond 2022 and river inter-linking projects.
- The balance ~8% of projects belongs to the **unclassified** category; major sector here is power.

Interesting inferences from sectoral anaylsis

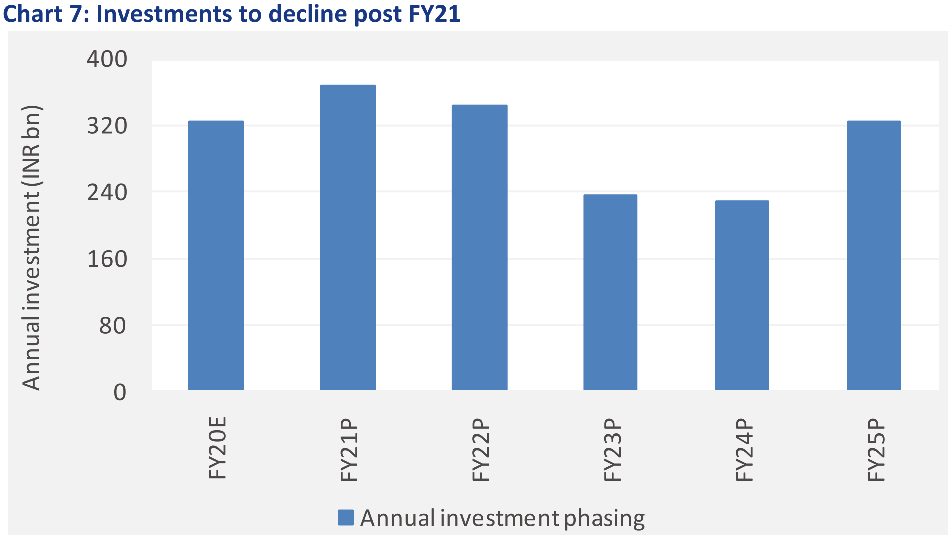
The roads sector is likely to witness significant private sector participation. As far as the railways are concerned, achieving the projected surge in investments in FY21 will be a difficult task. Similarly, the almost 5x YoY jump in capex in renewable energy in FY21 may be difficult to achieve. Considering negligible private sector participation, achievements of targets in rural and urban infra segments will depend on government funding.

Roads

In the roads sector, the NIP plans to achieve the following objectives:

- Improvement in total length of National Highways from ~0.13mn km to ~0.2mn km.
- Improvement in length of expressways from ~1,600km to ~20, 0000km.
- Improving share of private sector participation with asset ownership to tilt in favour of financial institutions.

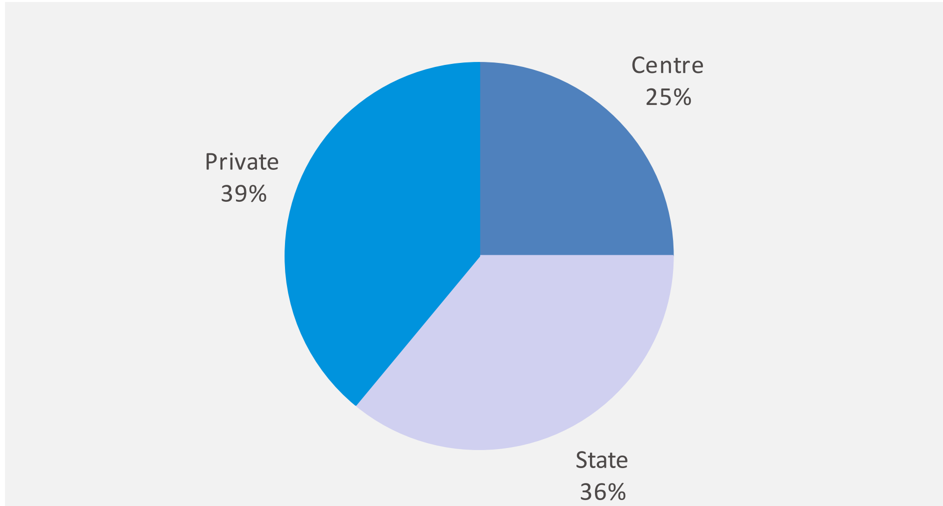
Chart 7: Investments to decline post FY21



Source: Government documents, Edelweiss research

Major projects include the Delhi-Mumbai Expressway and Chennai-Bengaluru Expressway.

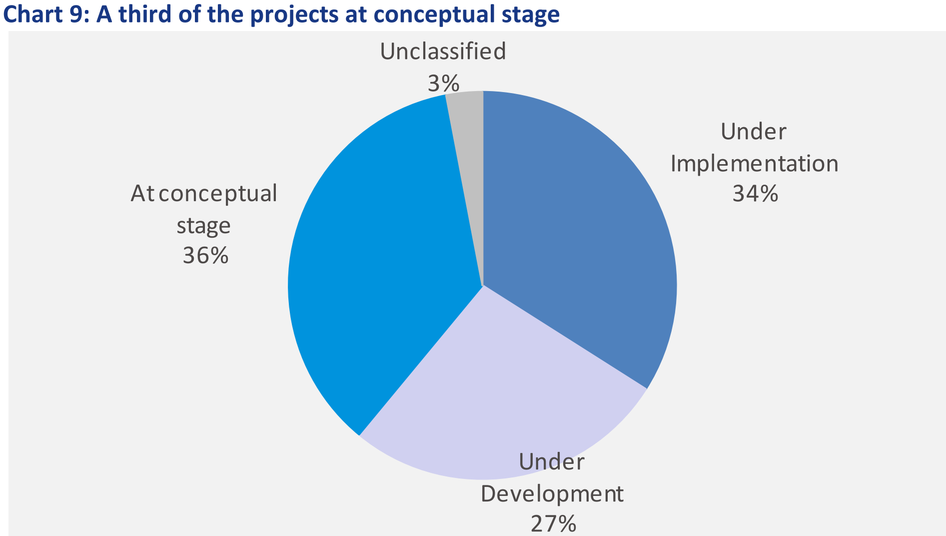
Chart 8: Private sector contributes largest chunk of investments



Source: Government documents, Edelweiss research

The well established PPP mode means that private sector participation is high in roads.

Chart 9: A third of the projects at conceptual stage



Source: Government documents, Edelweiss research

Around a third of the projects are at conceptual stage.

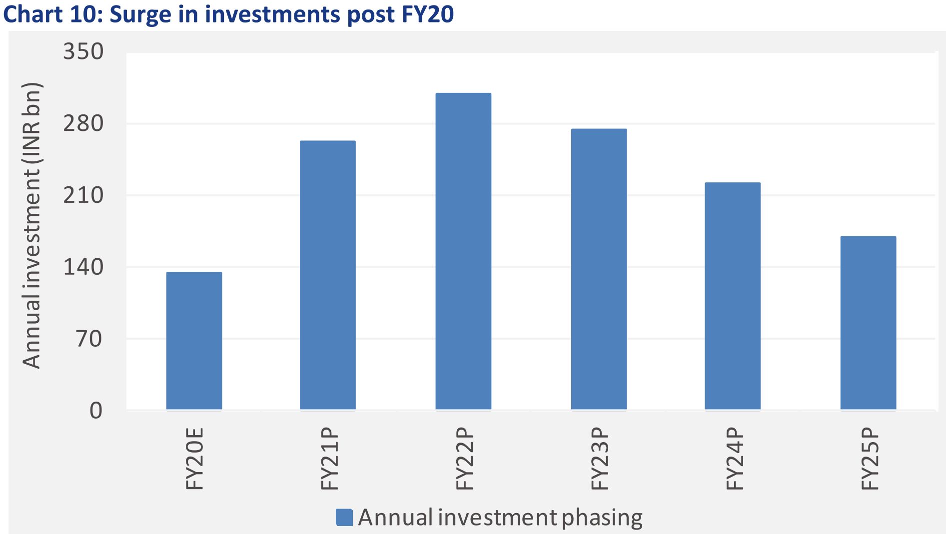
Railways

In the railways sector, the NIP plans to achieve the following objectives:

- Increase in share of railways in freight traffic from 33% to >40%.
- Healthy private sector participation with 30% of net cargo volumes and 500 passenger trains privatized, 30% of 750 stations privatized and rolling stock to come from the private sector.
- EDFC and WDFC fully operational with construction underway of planned DFCs:East-West, North-South, East-coast and South-West.
- Mumbai-Ahmadabad HSR to be operational; other identified HSRs at advanced stage of implementation.
- 100% of existing railway network electrified.

In the railways sector, the NIP envisages a sharp jump in investments. We believe the almost 2x YoY jump in capex in FY21 will be difficult to achieve.

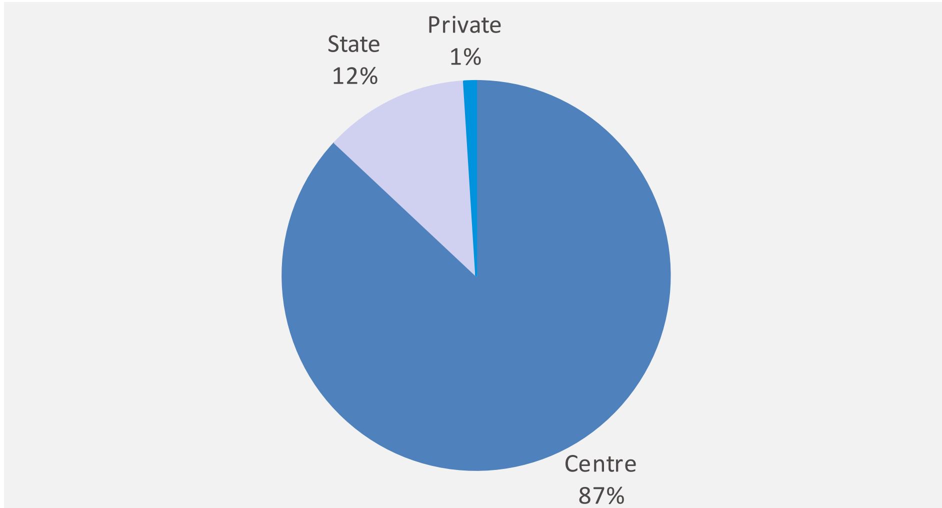
Chart 10: Surge in investments post FY20



Source: Government documents, Edelweiss research

Major projects include the Dedicated Freight Corridor and High Speed Rail.

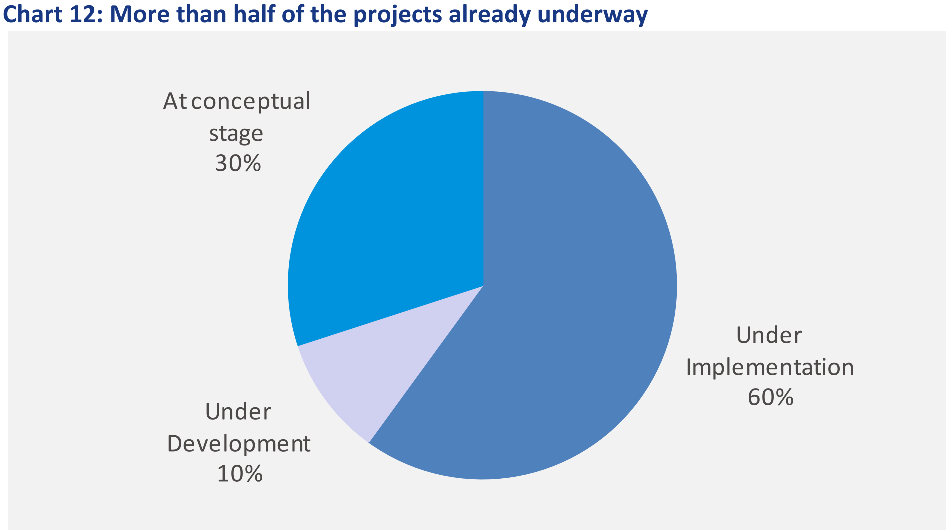
Chart 11: Bulk of funding to come from Center



Source: Government documents, Edelweiss research

Private sector participation in railway projects is negligible as of now.

Chart 12: More than half of the projects already underway



Source: Government documents, Edelweiss research

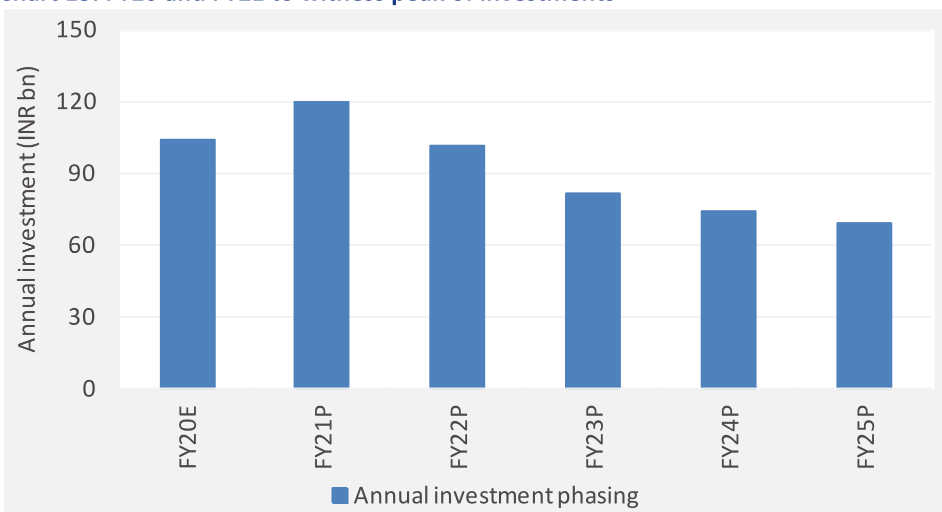
Considering the long gestation of railway projects, around 60% of the projects are already under implementation.

Power

In the power (conventional and renewable energy), the NIP plans to achieve the following objectives:

- Ensuring 24x7 clean and low cost power availability to all households, industry, commercial businesses and agriculture.
- Increasing total capacity from 356GW to 619GW.
- Reducing share of thermal power in favour of renewable power.
- Substantial increase in per-capita electricity consumption.
- Lowering AT&C losses through increased PPP in discoms.
- Smart metering to be implemented for all categories of customers.

Chart 13: FY20 and FY21 to witness peak of investments

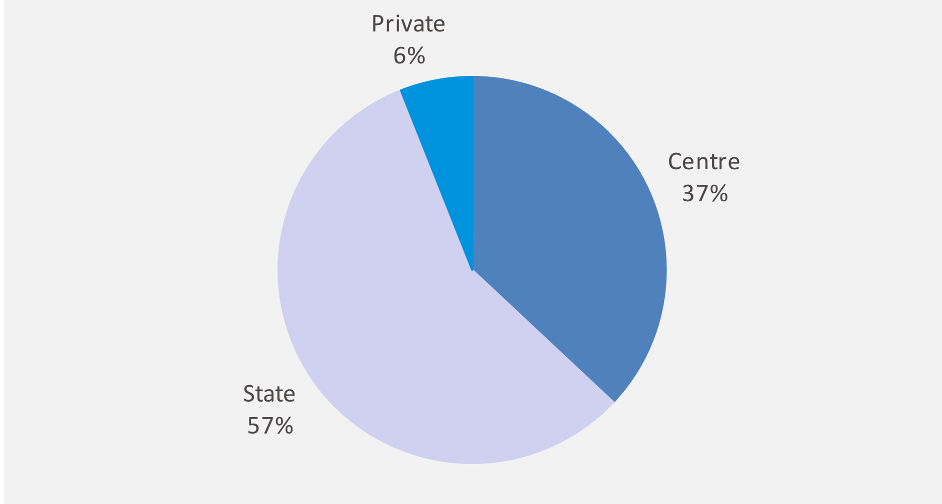


Source: Government documents, Edelweiss research

Note: Excludes the power sector from the MOP as phasing of data has not been provided

Major projects include the Dibang Hydel Power Project and HVDC Bipole Link Project (transmission).

Chart 14: States contribute largest chunk of investments

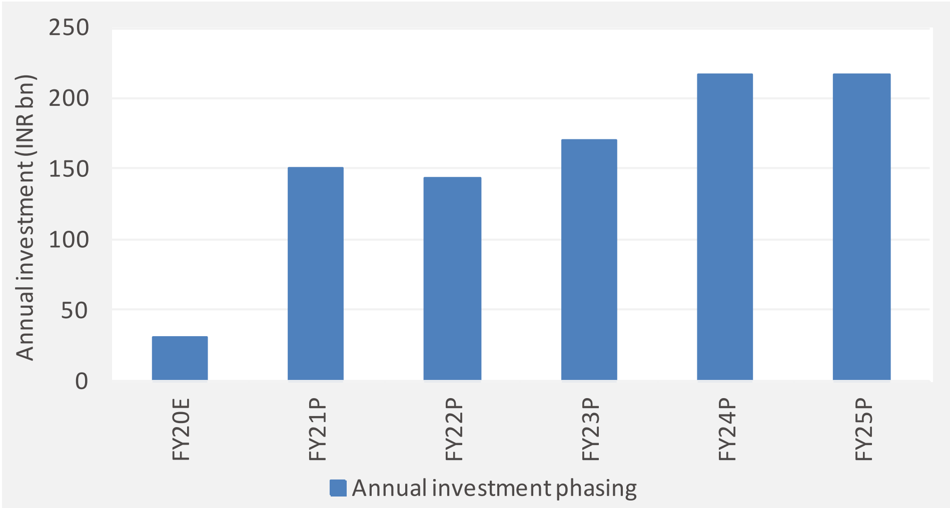


Source: Government documents, Edelweiss research

Renewable energy

In the renewable sector, the NIP envisages a sharp jump in investments going ahead. We believe the almost 5x YoY jump in capex in FY21 may be difficult to achieve.

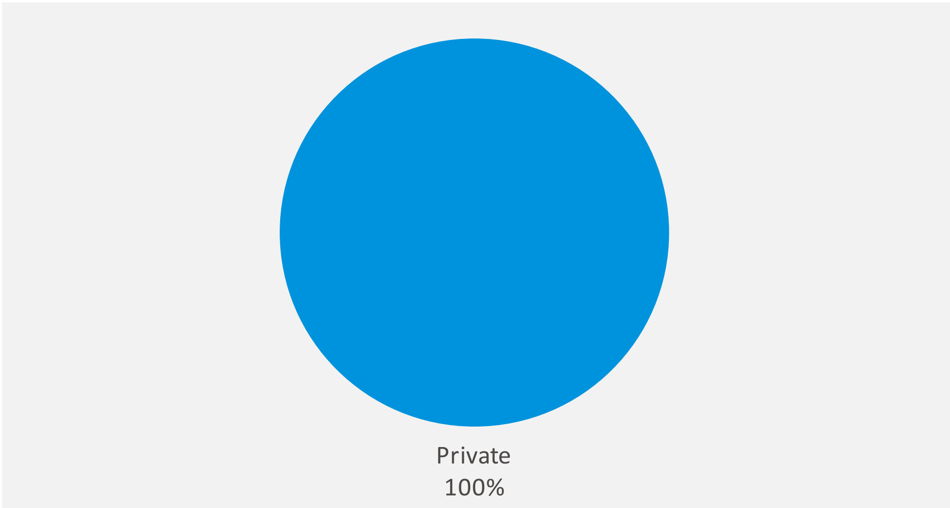
Chart 15: Surge in investments post FY20



Source: Government documents, Edelweiss research

The segment has a well-stocked pipeline through to FY25 because of 450GW target visibility.

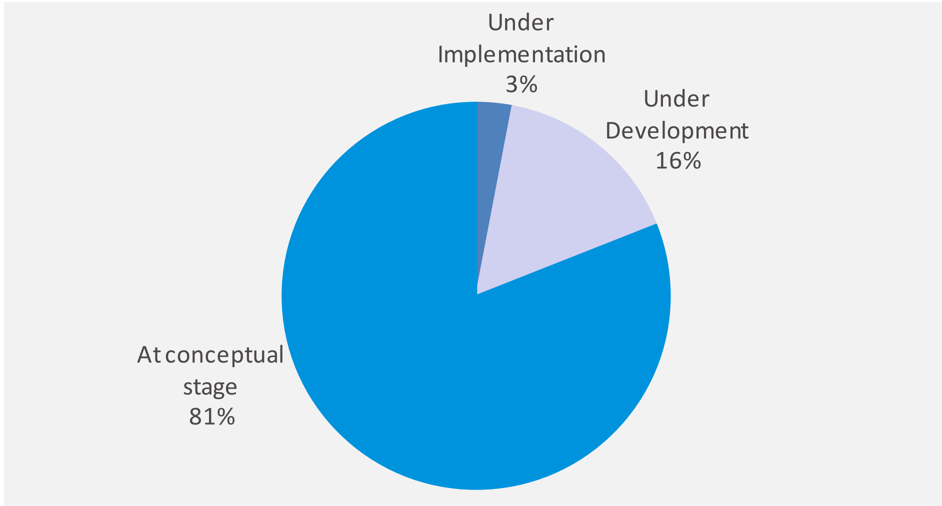
Chart 16: Private sector to bear the entire burden of investments



Source: Government documents, Edelweiss research

The well established PPP mode means that private sector participation is high in roads.

Chart 17: Only a sixth of the projects already underway



Source: Government documents, Edelweiss research

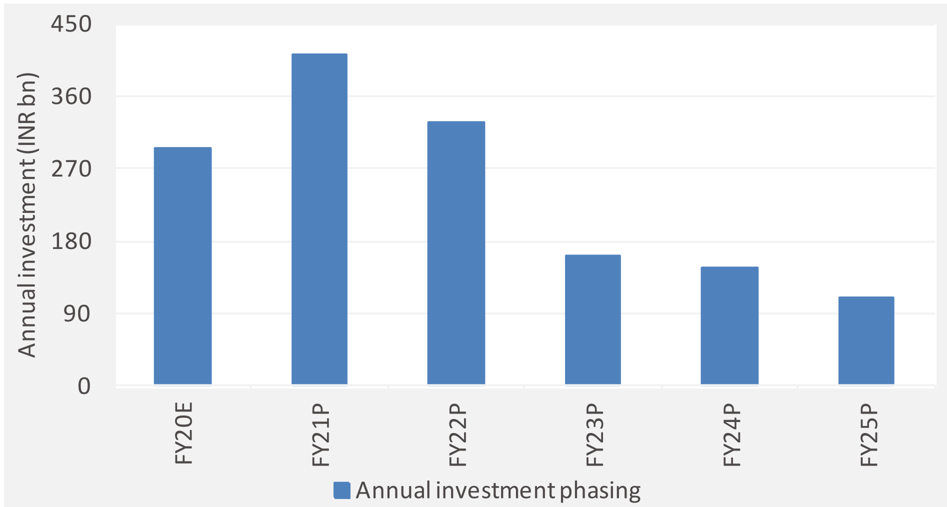
More than 80% of the projects are still at concept stage.

Urban infra

In the urban infra sector, the NIP plans to achieve the following objectives:

- Connecting ~100% of urban and rural households to piped-water supply.
- Most of the waste water treated and re-used in rural and urban areas.
- ~100% of municipal solid waste generated is treated with advanced scientific techniques.
- Low proportion of population living in slums with implementation of PMAY.
- Metro rail transit system to be available in >25 cities.

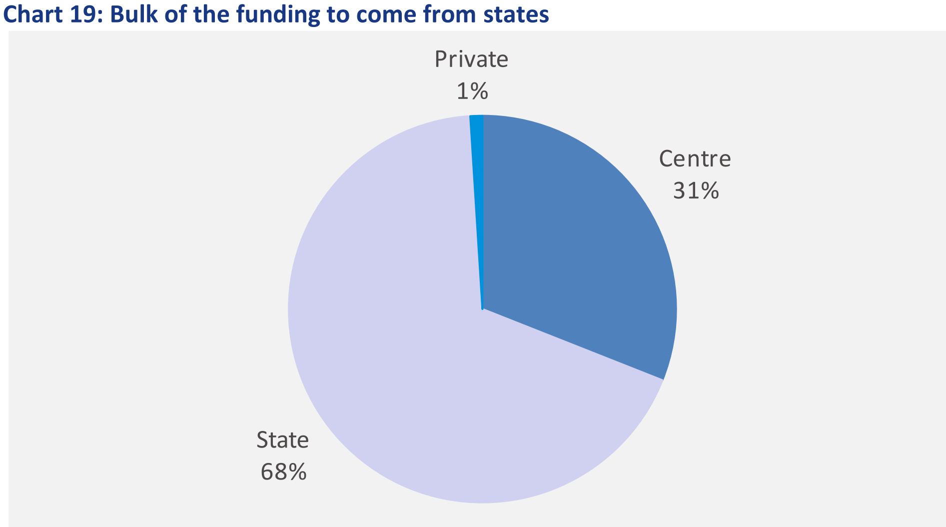
Chart 18: FY21 to witness the peak of investments



Source: Government documents, Edelweiss research

Major projects include Surat Metro Rail, Kanpur metro, Affordable Housing and Jal Jeevan Mission (Urban).

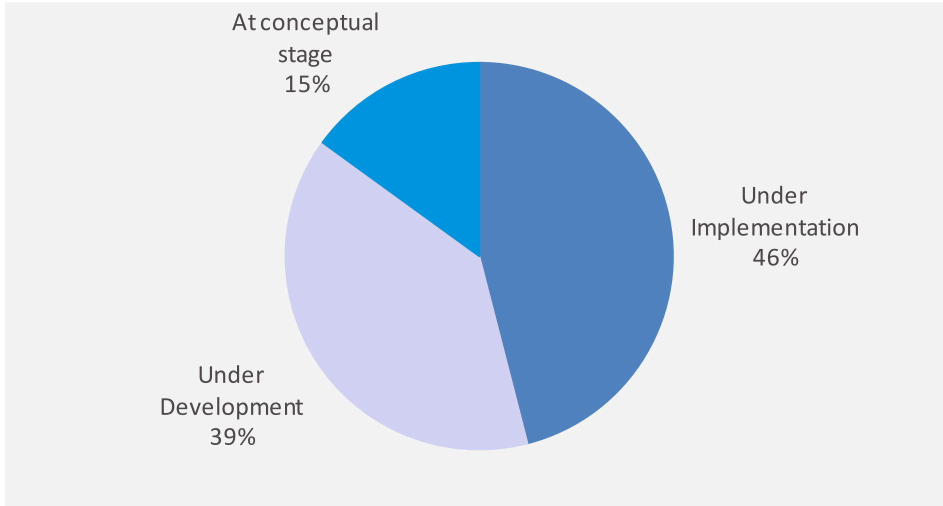
Chart 19: Bulk of the funding to come from states



Source: Government documents, Edelweiss research

Private sector participation in urban infra projects is negligible as of now.

Chart 20: Around half of the projects already underway



Source: Government documents, Edelweiss research

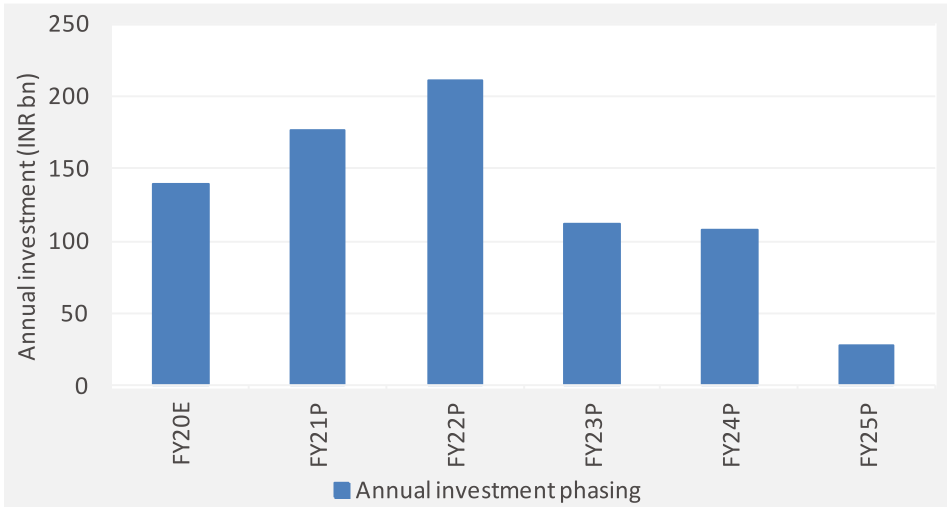
Around 46% of the projects are already under implementation.

Rural infra

In the rural infra sector, the NIP plans to achieve the following objectives:

- 100% of rural population to have access to pucca houses with basic civic amenities.
- Under Jal Jeevan Mission, all rural households to have piped water supply by 2024.
- 100% of rural households to have access to individual household toilets.

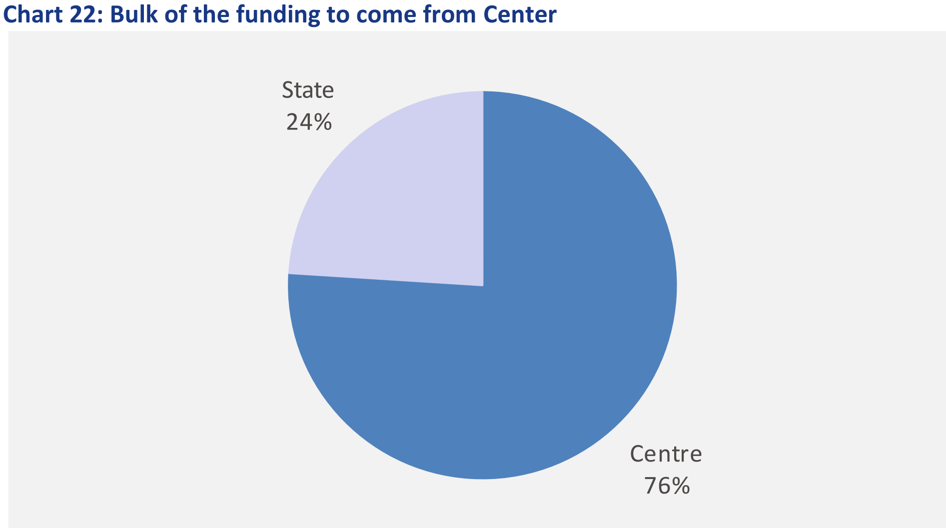
Chart 21: FY22 to witness the peak of investments



Source: Government documents, Edelweiss research

Major projects include Jal Jeevan Abhiyan (Rural), PMGSY and PMAY-G.

Chart 22: Bulk of the funding to come from Center



Source: Government documents, Edelweiss research

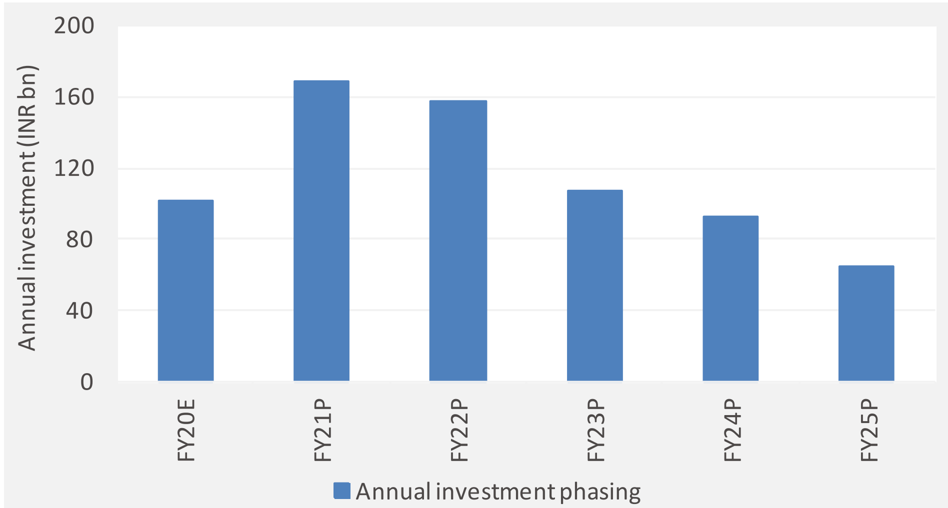
Private sector participation in urban infra projects is nil as of now.

Irrigation

In the irrigation sector, the NIP plans to achieve the following objectives:

- **Higher irrigation coverage**: Increasing the irrigated land to ~85mn hectares (~61% of total) from ~68mn hectares (49% of total). Reduced dependence on rains to improve farmers' incomes and consumption levels.
- **Micro irrigation** to cover 28% of total NIA, leading to efficient use of scarce water.
- Priority links identified as per NPP to be taken up. **River inter-linking** to increase overall area under irrigation, domestic and industrial water supply.

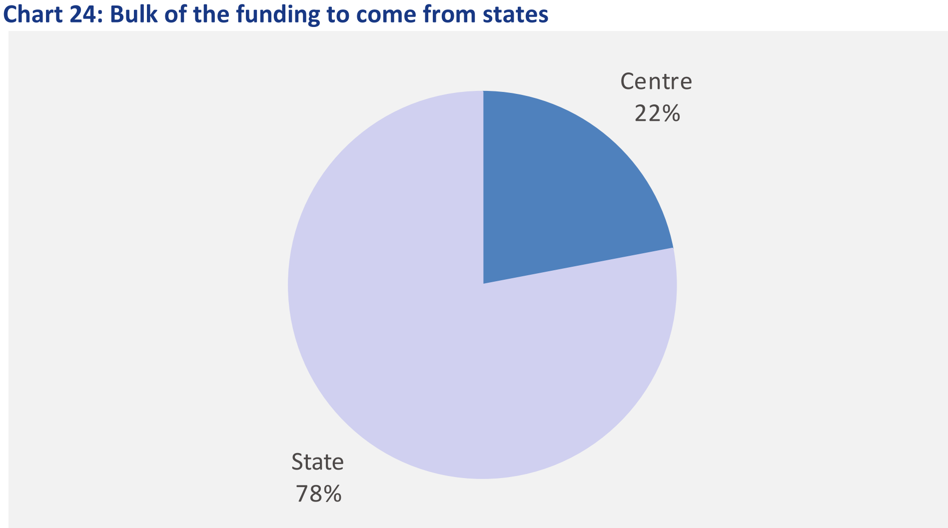
Chart 23: FY21 to witness the peak of investments



Source: Government documents, Edelweiss research

Major projects include Ken-Betwa, Godavari-Cauvery river linking, Clean Ganga and reservoir projects.

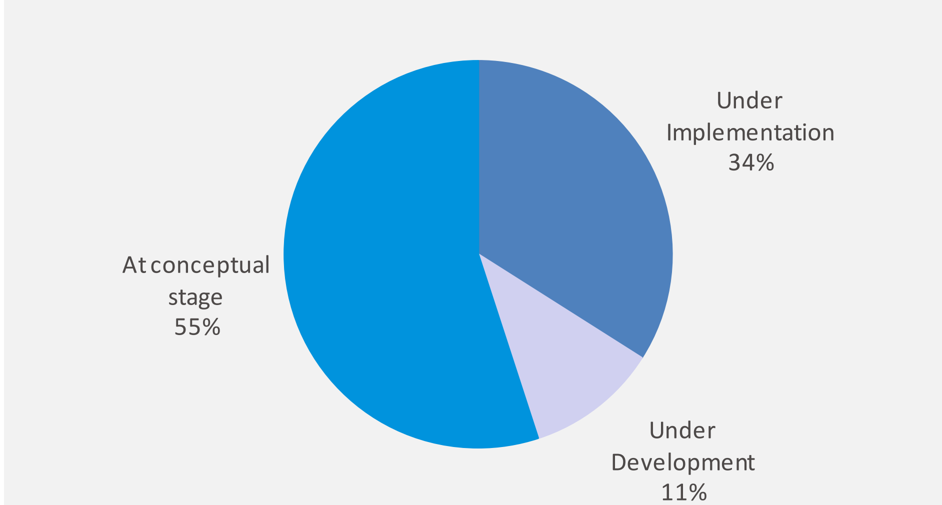
Chart 24: Bulk of the funding to come from states



Source: Government documents, Edelweiss research

Private sector participation in irrigation projects is nil as of now.

Chart 25: More than half of the projects at concept stage



Source: Government documents, Edelweiss research

Around 55% of the projects are at concept stage.

Challenges

We see two broad challenges in achieving the ambitious plans under NIP. These include:

- **Funding**: at a time when economic growth is facing headwinds and liquidity is scarce, fund availability is a major constraint for infra projects. How the government tackles these issues and mobilizes resources – from its own budgetary resources, debt funding from the banking system and equity funding from pension funds and other financial institutions – will determine the success of NIP, in our view.

Table 2: Financing the NIP – central contribution

Particulars (INR tn)	FY19 (RE)	FY20 (BE)	FY21P	FY22P	FY23P	FY24P	FY25P
Total capital outlay by Centre (infra) **A**	3.5	3.8	4.6	5.6	6.8	8.2	10.0
Budgetary support (infra) **B**	1.4	1.5	1.9	2.3	2.7	3.3	4.0
C = B/A (%)	39.3	40.6	40.6	40.5	40.5	40.6	40.5
Budgetary support/GDP (**D = B/E**) (%)	0.7	0.7	0.8	0.9	1.0	1.0	1.1
Incremental budgetary support/GDP vs FY20 (%)			0.1	0.1	0.2	0.3	0.4
GDP in INR tn (**E**)	190.1	205.4	227.0	254.3	286.4	323.3	365.5
Nominal GDP growth (%)		8.0	10.5	12.0	12.6	12.9	13.1

Source: Government documents, Edelweiss research

The government's own assumptions towards budgetary support for infra projects is contingent on: (a) increase in budgetary support (as % of GDP) from 0.73% in FY19 to 1.11% in FY25; and (b) improvement in nominal GDP growth rate to ~12.5% over FY22-25.

- **Co-ordination between various stake holders and capacity building amongst government departments**: As highlighted earlier, achieving a 2x YoY jump in railway capex and 5x YoY jump in renewable energy capex in FY21 is a difficult tasks. This will require substantial efforts by the government towards the entire value chain of infra projects – conceptualization, project preparation, biddings, clearances, financing and development. This will require immense coordination between various stake holders.

Conclusion

At a time when muted economic growth and sluggish infra spending have cast a pall of gloom over infra companies, the NIP is a much needed saviour to change the narrative on infra investments in India. While the intent is right, the government now needs to focus attention on towards resource mobilisation, efficient execution and enhancing coordination between various stakeholders.

Potential beneficiaries of this opportunity include KNR Constructions (**BUY**), PNC Infratech (**BUY**), NCC (**BUY**), Ashoka Buildcon (**BUY**), Sadbhav Engineering (**BUY**), Ahluwalia Contracts (**BUY**) and Capacit'e Infra (**BUY**).

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Coverage group(s) of stocks by primary analyst(s): Infrastructure - Construction

Ahluwalia Contracts, Ashoka Buildcon, Capacit'e Infraprojects Limited, Hindustan Construction Co., J Kumar Infraprojects, KNR Constructions, NBCC, Nagarjuna Construction Co, PNC Infratech, Sadbhav Engineering, Simplex Infrastructures Ltd

Recent Research

Date	Company	Title	Price (INR)	Recos
18-Nov-19	**Sadbhav Engineering**	Mixed bag; *Result Update*	117	Buy
18-Nov-19	**J Kumar Infraprojects**	Execution ramps up; order-wins bring cheer; *Result Update*	160	Buy
15-Nov-19	**NBCC**	No end to woes; *Result Update*	37	Reduce

Distribution of Ratings / Market Cap

Edelweiss Research Coverage Universe

	Buy	Hold	Reduce	Total
Rating Distribution* * 1stocks under review	161	67	11	240

	> 50bn	Between 10bn and 50 bn	< 10bn
Market Cap (INR)	156	62	11

Rating Interpretation

Rating	Expected to
Buy	appreciate more than 15% over a 12-month period
Hold	appreciate up to 15% over a 12-month period
Reduce	depreciate more than 5% over a 12-month period

All price charts cannot be included given the large of number of companies in our coverage. Specific charts may be available upon request

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