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The World Bank Group
Public-Private Infrastructure Advisory Facility
PRIVATE PARTICIPATION IN INFRASTRUCTURE DATABASE

PPI data update note 75 **September 2012**

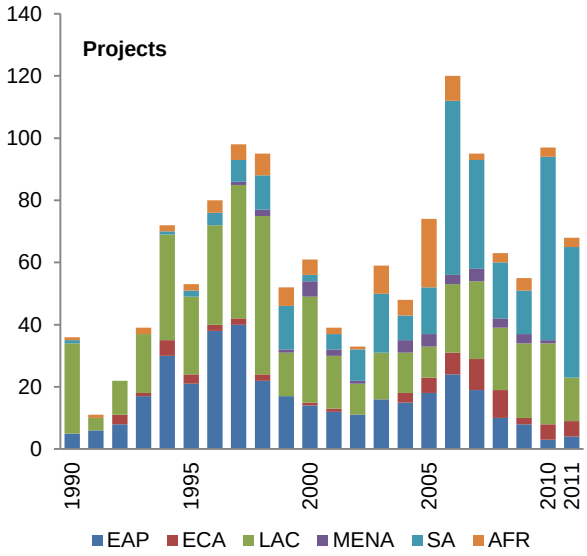
Private investment in transport increases in 2011, focusing on the road and rail sectors

Overview

In 2011, 68 new transport projects reached financial or contractual closure in 15 lower- and upper-middle income countries: Argentina (1 project), Brazil (4), Chile (3),China (4), India (41), Kosovo(1), Mexico (3), Nigeria (1), Peru (3), Romania (1), the Russian Federation (1), South Africa (1), Sri Lanka (1), Togo (1), Turkey (2), and Zimbabwe (1).[1] Total investment commitments (hereafter, *investment*) in transport projects reached US$31.9 billion, of which US$30 billion were investments in new projects and US$1.9 billion were investments in existing projects (Figure 2).

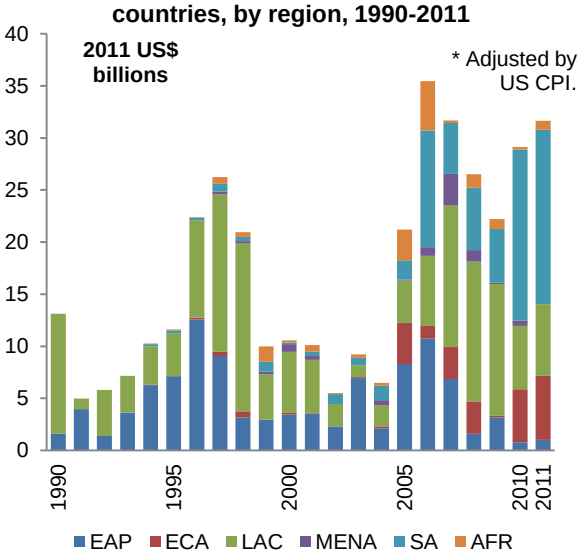
Regional focus

Figure 1: Transport projects with private participation, by regions, 1990-2011



Source: World Bank and PPIAF, PPI Project Database.

Figure 2: Investment commitments in transport projects in developing countries, by region, 1990-2011



Source: World Bank and PPIAF, PPI Project Database.

By number of projects (42) and by investment (US$17 billion), private activity in transport was concentrated in **South Asia** (SA), namely in India where 41 new projects closed in 2011. Total investment in transport projects in the region amounted to US$17 billion, a 4% increase from 2010 levels. One project, Colombo South Container Terminal, closed in Sri Lanka in December 2011, making this the third transport project with private participation in Sri Lanka since 1990. Following SA, was **Latin America and the Caribbean** (LAC), where 14 new transport projects (six road projects, four seaport projects, three airport projects and one railroad project)

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[1] Data on transport projects with private participation include primarily medium-size and large projects in low and middle income countries as reported by the media and other public sources. Small-scale projects are generally not included because of lack of public information. More information is available at http://ppi.worldbank.org/.

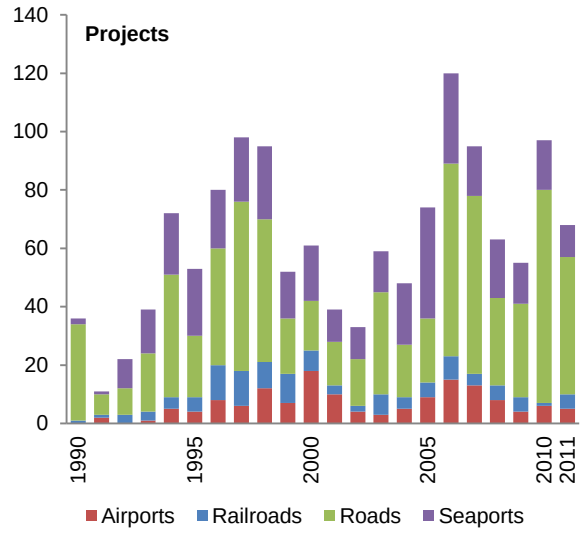
closed in 2011 with total investment of US$6.9 billion (in line with 2010 levels, but a 50% drop from 2009 levels). São Paulo Rodoanel Sul e Leste, a highway concession, closed in March 2011 in Brazil, and involved US$2.2 billion in investment commitments.

Europe and Central Asia (ECA) ranked third with five new projects closing in 2011 (the same number as in 2010) and total investments of US$6.1 billion, the largest amount since 1990. The focus in ECA switched to railroad projects: two projects closed, one in Romania and one the Russian Federation involving investments of over US$4.2 billion. **East Asia and Pacific** (EAP) ranked fourth, with four new projects, two seaport terminals and two highway projects, all located in China. Total investment in transport projects in EAP amounted to over US$1 billion. In **Africa** (AFR) there were three new projects: two seaport projects in Nigeria and Togo and one cross border highway project, Beitbridge Border Post, in Zimbabwe and South Africa. Total investment in transport projects in Sub-Saharan Africa amounted to US$851.4 million. There were no new projects or any investment in **Middle East and North Africa** in 2011.

Subsector focus

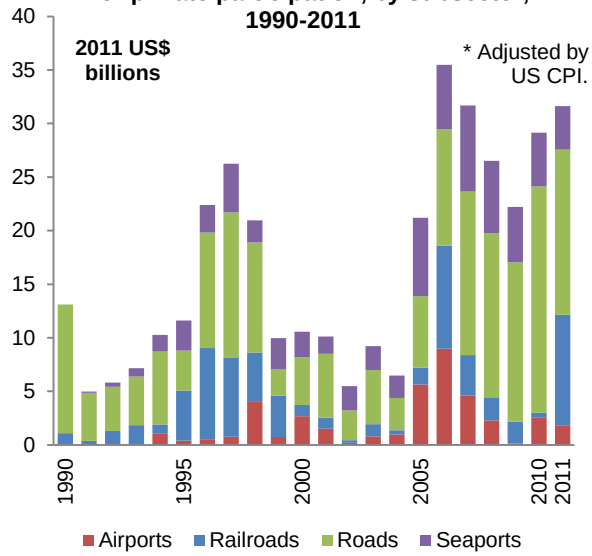
The road sector accounted for 47 projects (69% of all new projects) and total investments of US$15.3 billion. They were followed by seaports (16%) which involved total investments of over US$4 billion. Airport projects accounted for five projects (7%) and US$1.7 billion. Lastly, the number of railroad projects increased from one in 2010, to five in 2011 involving investments of US$10.3 billion: two projects closed in ECA and three in SA.

Figure 3: Transport projects with private participation, by subsector, 1990-2011



Source: World Bank and PPIAF, PPI Project Database.

Figure 4: Investment in transport projects with private participation, by subsector, 1990-2011

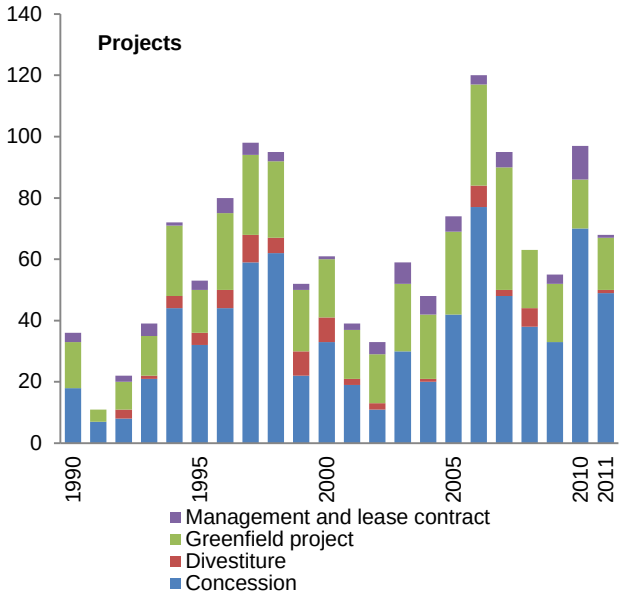


Source: World Bank and PPIAF, PPI Project Database.

Contract type focus

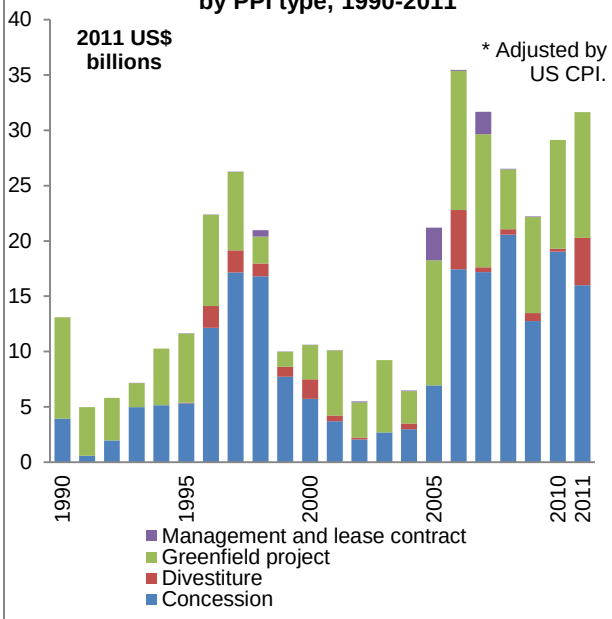
By contract type, concessions were predominant both in terms of number of projects and investment levels. They accounted for 49 projects (72% of all new projects) and US$15.9 billion (50% of all the investment). They were followed by greenfield BOTs (25%), management contracts and divestitures (1.5% each). Although they accounted for only a quarter of the projects closed in 2011, greenfield projects involved the second largest amount of investment US$11.6 billion. This can be explained by that fact that greenfield projects generally require more capital expenditure than concessions. Finally, all divestiture investment in 2011 was due to Freight One, a railroad divestiture in the Russian Federation with investment commitments of US$4.2 billion.

Figure 5: Transport projects with private participation, by PPI type, 1990-2011



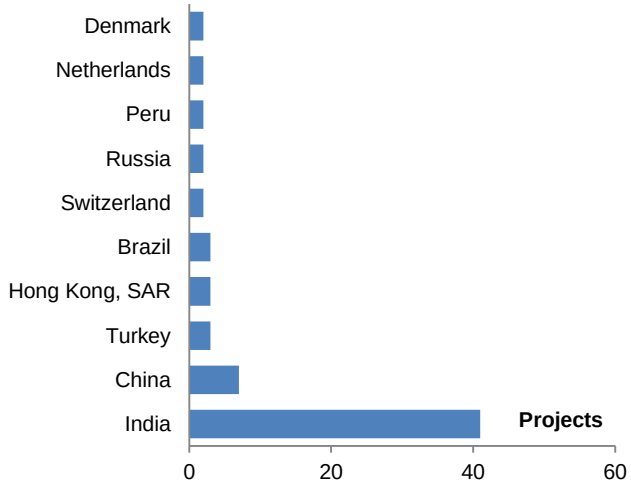
Source: World Bank and PPIAF, PPI Project Database.

Figure 6: Investment in transport projects, by PPI type, 1990-2011



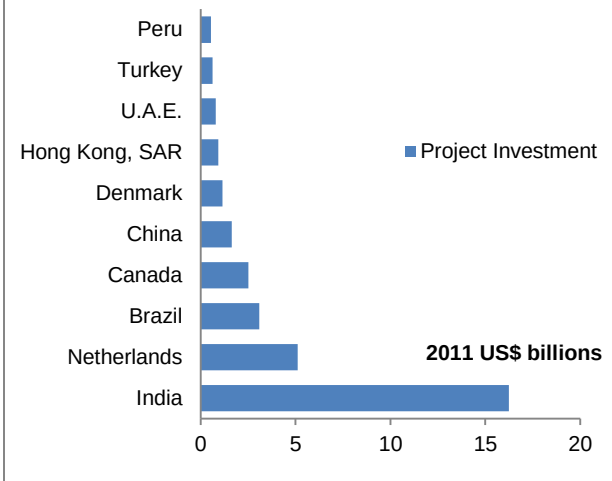
Source: World Bank and PPIAF, PPI Project Database.

Figure 7: Top 10 sponsor countries by number of transport projects in 2011



Source: World Bank and PPIAF, PPI Project Database.

Figure 8: Top 10 sponsor countries by investments in transport projects in 2011



Source: World Bank and PPIAF, PPI Project Database.

Sponsor focus

Indian sponsors dominated the transport sector both by number of projects (41) and by investment (over US$16 billion). They only invested locally, in India. Indian sponsors were followed by Chinese sponsors who invested in seven projects, all local. Dutch sponsors who invested over US$5 billion globally of which US$4.2 billion was invested in only one project, Freight One, a rail project in Russia. Turkish sponsors ranked third based on the number of projects they invested (3 projects, 2 airport and 1 seaport project). Their total investment amounted to US$623.6 million.

Featured project

L&T Hyderabad Metro Rail Private Ltd. (India) | Railroads | Greenfield (BOT) | 35 years| PPP

Project Information

On August 6, 2010, the Andhra Pradesh Government awarded a 35-year contract (extendable by an additional 25 years) to Larsen & Toubro Limited to build a 71.16km elevated metro line covering three high density traffic corridors of Hyderabad in the state of Andhra Pradesh.

Under the contract, the consortium was responsible for the design, construction, financing, operation and maintenance of the metro line. The project would be integrated with the existing suburban railway network (MMTS) and bus stops. Hyderabad would be one of the first city in India to have integrated urban planning with intermodal connectivity.

Bidding process

The contract was awarded through international competitive bidding, conducted by the Andhra PradeshGovernment, The bidding criteria was the lowest subsidy requirement from the government, Financial bids for the project were opened on July 14, 2010 and three pre-qualified bidders participated in the tender:: Larsen & Toubro Ltd which requested a subsidy of INR 14580mn (12% of project cost); Transstroy India-OJSC Transstroy Russia-CR18G Consortium which requested a subsidy of INR 22000mn (18% of project cost); and Reliance Infrastructure consortium which requested a subsidy of INR 29910mn (25% of project cost).The project was awarded to the successful lowest bidder, Larsen & Toubro Ltd which quoted a US$ 324 million subsidy requirement. It established L&T Hyderabad Metro Rail Private Ltd, a Special Purpose Vehicle (SPV), to implement the project. Under the contract, the SPV was to recover the capital costs and operating costs including returns through user fees during the term of concession. A LoA was issued to them on August 6, 2010. L&T would provide the rolling stock and would be the EPC contractor.

Financial structure

The contract agreement was signed on September 4, 2010 and the project reached financial closure on April 5, 2011. The estimated capital cost of the project was US$3,639.5 million. Financing comprised: US$ 2551.1 million term loan, sponsor equity of US$764.4 million and a capital grant (or viability gap fund) of US$324 million from the government of India. The debt: equity ratio of the project was 77:23.

Government financial support to the PPP

State Bank of India (SBI) was the lead arranger of the term loan and the other members of the syndicate were Canara Bank, Indian Bank, Indian Overseas Bank Ltd, Jammu & Kashmir Bank Ltd, Punjab & Sind Bank, State Bank of Hyderabad, State Bank of Mysore, State Bank of Patiala, and Syndicate Bank Ltd. The debt tenor was 15 years door-to door. This included a 60-month construction period, a 12-month grace period and a nine-year repayment period that required 36 quarterly installments and 30% of the debt amount as a bullet repayment upon maturity. The loan had an interest rate of 225bp over SBI base rate, or 10.5%, during the first two years. It had a refix provision every two years. Lenders received participation fees of 10bp. Lenders were comforted by a guarantee provided by the sponsor L&T, which includes cost overruns of up to 5% of the project cost. Also, the sponsor provided cash support to maintain the debt service cover ratio (DSCR) at 1x.

Construction on the project began in April, 2011 and was expected to be completed by April, 2015.

Table 1: Transport projects with financial or contractual closure in 2011

Region AFR

	Country	Project Name	Project Status	Segment	Type of PPI	Subtype of PPI	Investment commitment (US$ millions)	Capacity Type	Capacity	Sponsors
1	Nigeria	Bullnose Port Facilities	Operational	Channel dredging and terminal	Concession	Build, rehabilitate, operate, and transfer	124.4	N/A	N/A	Eko Support Services Limited (100% / Nigeria)
2	South Africa, Zimbabwe	Beitbridge Border Post	Construction	Highway	Concession	Build, rehabilitate, operate, and transfer	97	KM	..	Old Mutual (South Africa), Nedbank Capital (South Africa), Sanlam (South Africa)
3	Togo	Lome Container Terminal	Operational	Terminal	Greenfield project	Build, operate, and transfer	495	Throughput (thousands)	1500	Mediterranean Shipping Company (MSC) (100% / Switzerland)

Region EAP

	Country	Project Name	Project Status	Segment	Type of PPI	Subtype of PPI	Investment commitment (US$ millions)	Capacity Type	Capacity	Sponsors
1	China	Berths No.1 and No.2 of the Meishan Container Port	Construction	Terminal	Greenfield project	Build, operate, and transfer	30	Throughput (thousands)	3	PSA Corp (Singapore)
2	China	Lianyungang New Century Liquid Chemical Port	Construction	Terminal	Greenfield project	Build, operate, and transfer	91.69	..	..	Tadee Group (100% / China)
3	China	Jinzhong Longcheng Expressway Registration Capital Increase	Construction	Highway	Greenfield project	Build, operate, and transfer	68.77	KM	71.6	Road King Infrastructure (45% / Hong Kong, China)

4	China	Increased Investment in Tangjin Express (Tianjin North Section)	Operational	Highway	Concession	Rehabilitate, operate, and transfer	745.22	KM	60.67	New World Development Co. Ltd. (60% / Hong Kong, China)

Region ECA

	Country	Project Name	Project Status	Segment	Type of PPI	Subtype of PPI	Investment commitment (US$ millions)	Capacity Type	Capacity	Sponsors
1	Kosovo	Pristina International Airport	Operational	Runway and terminal	Concession	Build, rehabilitate, operate, and transfer	127	Number of runways	1	Limak Holding (90% / Turkey)
2	Romania	CFR lease	Operational	Fixed assets	Management and lease contract	Lease contract	..	..	...	Transferoviar Group S.A. (100% / Romania)
3	Russian Federation	Freight One	Operational	Fixed assets and freight	Divestiture	Partial	4271	Number of working locomotives and cars	190000	UCL Rail (Universal Carogo Logistincs Holding B.V.) (75% / Netherlands)
4	Turkey	Iskenderun Port Concession	Operational	Terminal	Concession	Build, rehabilitate, operate, and transfer	425	..	..	Limak Holding (100% / Turkey)
5	Turkey	Zafer Airport	Construction	Runway and terminal	Greenfield project	Build, operate, and transfer	71.65	Number of runways	1	IC Holding (100% / Turkey)

Region LAC

	Country	Project Name	Project Status	Segment	Type of PPI	Subtype of PPI	Investment commitment (US$ millions)	Capacity Type	Capacity	Sponsors
1	Argentina	Santa Fe-Rosario Highway	Operational	Highway	Concession	Rehabilitate, operate, and transfer	6	KM	157	Arssa (100% / Argentina)
2	Brazil	Brasil Terminal Portuario	Construction	Terminal	Greenfield project	Build, lease, and transfer	845	Throughput (thousands)	1100	AP Moller - Maersk Group (50% / Denmark), Terminal Investments Limited (50% / Netherlands)
3	Brazil	São Paulo Rodoanel Sul e Leste	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	2221.5	KM	103.8	Grupo Bertin (100% / Brazil)
4	Brazil	MT 130 Highway	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	73.5	KM	122	Construtora Locatelli (50% / Brazil), Argesil Armazens Gerais e Silos Itaquere (50% / Brazil)
5	Brazil	Embraport	Construction	Terminal	Greenfield project	Build, own, and operate	800	Throughput (thousands)	1000	Odebrecht SA (26% / Brazil), Dubai Holding (26% / United Arab Emirates), Coimex (16% / Brazil)
6	Chile	El Loa de Calama Airport II	Operational	Runway and terminal	Concession	Build, rehabilitate, operate, and transfer	34	Number of runways	1	Agunsa (100% / Chile)
7	Mexico	Guaymas Fertilizer Terminal	Construction	Terminal	Greenfield project	Build, operate, and transfer	4.4	N/A	N/A	Dune Company of Yuma, LLC (100% / United States)
8	Mexico	Autovia Urbana Sur	Construction	Highway	Greenfield project	Build, operate, and transfer	524	KM	21	ICA SA de CV (30% / Mexico), Impulsora Del Desarrollo Y El Empleo En América Latina SA de CV (IDEAL) (70% / Mexico)

9	Mexico	Autovia Urbana Norte	Construction	Bridge and highway	Greenfield project	Build, operate, and transfer	801	KM	9	Obrascón Huarte Lain (OHL) (100% / Spain)
10	Chile	Cerro Moreno Airport II	Construction	Terminal	Concession	Build, rehabilitate, operate, and transfer	28	Number of runways	1	Gestión e Ingenieria IDC (Chile), Unique (Flughafen Zurich AG) (15% / Switzerland)
11	Chile	Iquique Highway Access Project	Construction	Highway	Concession	Build, rehabilitate, operate, and transfer	220	KM	78	Sacyr Vallehermoso SA (SyV) (100% / Spain)
12	Peru	Lima Electric Train - Line I	Construction	Passenger	Greenfield project	Build, operate, and transfer	290	KM	11.7	Graña y Montero SA (Peru)
13	Peru	Callao Terminal Norte (Phases I and II)	Operational	Terminal	Concession	Build, rehabilitate, operate, and transfer	313	Throughput (thousands)	1600	AP Moller - Maersk Group (51% / Denmark)
14	Peru	Aeropuertos del Sur	Operational	Runway and terminal	Concession	Build, rehabilitate, operate, and transfer	257	Number of runways	6	Corporación América (CASA) (50% / Argentina), Andino Investment Holding (50% / Peru)

Region SA

	Country	Project Name	Project Status	Segment	Type of PPI	Subtype of PPI	Investment commitment (US$ millions)	Capacity Type	Capacity	Sponsors
1	India	Mumbai Metro - Phase II	Construction	Freight and passenger	Greenfield project	Build, operate, and transfer	2514.8	KM	32	Reliance ADA Group (74% / India), SNC Lavalin (26% / Canada)
2	India	Essel Ahmedabad Godhra Toll Roads Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	280.7	KM	117.6	Essel Group (74% / India), China Railway Construction 18th Bureau (Group) Co., Ltd (26% / China)
3	India	Abhijeet Hazaribagh Toll Road Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	139.3	KM	41.3	Abhijeet Group (100% / India)
4	India	Transstroy Bhopal Bypass Tollway Private Limited	Construction	Highway	Concession	Build, rehabilitate, operate, and transfer	106.7	KM	52	Transstroy India Limited (100% / India)
5	India	Bhubaneswar Expressways Private Limited	Construction	Highway	Greenfield project	Build, operate, and transfer	120.2	KM	67	Valecha Engineering Limited (40% / India), KazStroyService Group (60% / Kazakhstan)
6	India	GVK Deoli Kota Expressway Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	342.8	KM	83	GVK Group (100% / India)
7	India	Navayuga Jahnavi Toll Bridge Private Limited	Construction	Bridge and highway	Greenfield project	Build, operate, and transfer	355.5	KM	51	Navayuga Group (100% / India)
8	India	Ghaziabad Aligarh Expressway Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	516.7	KM	126	SREI Infrastructure Finance Ltd (India), PNC Infratech Ltd India), Galfar Engineering & Contracting SAOG (Galfar) (25% / Oman)

9	India	SP Jammu Udhampur Highway Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	533.3	KM	65	Shapoorji Pallonji Group (100% / India)
10	India	K M Toll Road Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	260	KM	71	Reliance ADA Group (100% / India)
11	India	North Bihar Highway Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	145.8	KM	86	BSCPL Infrastructure Ltd (50% / India), C&C Constructions Ltd (50% / India)
12	India	Navayuga Quazigund Expressway Private Limited	Operational	Highway and tunnel	Concession	Build, rehabilitate, operate, and transfer	558.6	KM	15.25	Navayuga Group (100% / India)
13	India	Ashoka Sambalpur Baragarh Tollways Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	258.5	KM	88	Ashoka Buildcon Ltd (100% / India)
14	India	Sion Panvel Tollways Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	379	KM	23	IVRCL Infrastructures & Projects Ltd. (51% / India)
15	India	Transstroy Dindigul Theni Kumli Tollways Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	73.6	KM	134	OJSC Corporation Transstroy, (26% / Russian Federation), Transstroy India Limited (74% / India)
16	India	Transstroy Trichy Karaikudi Tollways Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	68.7	KM	110.4	Transstroy India Limited (74% / India), OJSC Corporation Transstroy, (26% / Russian Federation)
17	India	IRB Tumkur Chitradurga Tollway Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	728.5	KM	114	IRB Infrastructure Developers Ltd (100% / India)
18	India	Topworth Tollways (Ujjain) Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	49.3	KM	95.2	Topworth Group (India), Metallurgical Corporation of China (China)

19	India	Soma Isolux Varanasi Aurangabad Tollway Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	876.5	KM	192.4	Isolux Corsan (50% / Spain), Soma Enterprise Ltd (50% / India)
20	India	GVRMP Whagdhari Ribbanpally Tollway Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	90	KM	141.2	GVR Group (India), RMN Infrastructure Limited (25% / India), Prathyusha Group (India)
21	India	L&T Hyderabad Metro Rail Private Limited	Construction	Passenger	Greenfield project	Build, operate, and transfer	3639.5	KM	71.16	Larsen & Toubro Limited (100% / India)
22	India	Blue Water Iron Ore Terminal Private Limited	Construction	Terminal	Greenfield project	Build, operate, and transfer	119.2	Throughput (thousands)	10000	Noble Group Ltd (51% / Hong Kong, China), Gammon India Ltd (31% / India), MMTC Limited (18% / India)
23	India	Raebareilly Allahabad Highway Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	75.8	KM	106	Vijai Infrastructure Limited (100% / India)
24	India	GVK Bagodara Vasad Expressway Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	253	KM	101.8	GVK Group (100% / India)
25	India	Barasat Krishnagar Expressways Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	208.5	KM	84	Madhucon Projects Ltd (100% / India)
26	India	GVRMP Belgaum Khanapur Tollway Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	84	KM	81.9	GVR Group (India), RMN Infrastructure Limited (26% / India), Prathyusha Group (India)
27	India	Delhi Agra Toll Roads Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	671.4	KM	179.5	Reliance ADA Group (100% / India)
28	India	Abhijeet Bihar Roadways Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	77.2	KM	92	Abhijeet Group (100% / India)

29	India	Sanjose Supreme Tollways Development Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	273.7	KM	47	Supreme Infrastructure India Ltd (40% / India), Sanjose Constructora Spain S.A. (60% / Spain)
30	India	Khagaria Purnea Highway Project Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	158.7	KM	140	Punj Lloyd Limited (100% / India)
31	India	SEW Krishnagar Baharampore Highways Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	172.7	KM	78	SEW Infrastructure (100% / India)
32	India	Essel Ludhiana Talwandi Toll Roads Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	156.5	KM	78	Essel Group (100% / India)
33	India	Tantia Raxaul Tollway Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	123.2	KM	68.8	Jiangsu Provincial Transportation Engineering Group Company (JTEG) (26% / China), Tantia Construction Limited (74% / India)
34	India	Oriental Nagpur Betul Highway Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	747.9	KM	176.3	Oriental Structural Engineers Private Ltd. (100% / India)
35	India	Orissa Steel Expressways Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	164.4	KM	96	SREI Infrastructure Finance Ltd (India), MBL Infrastructures Limited (India)
36	India	Supreme Panvel Indapur Tollways Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	263.8	KM	84	Supreme Infrastructure India Ltd (64% / India), China State Construction Engineering Corporation (China), Mahavir Road & Infrastructure Private Limited (India)

37	India	Patna Bakhtiarpur Tollway Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	217.3	KM	50.6	BSCPL Infrastructure Ltd (50% / India), C&C Constructions Ltd 39(50% / India)
38	India	Ranchi Expressway Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	352.1	KM	163.5	Madhucon Projects Ltd (100% / India)
39	India	Reengus Sikar Expressway Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	48.5	Km	43.88	G R Infraprojects Limited (100% / India)
40	India	Soubhagya Hata Darguwan Projects Private Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	23.8	KM	64.42	Soubhagya Infrastructure Private Limited (100% / India)
41	India	Srinagar Banihal Expressway Limited	Operational	Highway	Concession	Build, rehabilitate, operate, and transfer	340.4	KM	67.76	Ramky Group (74% / India), Jiangsu Provincial Transportation Engineering Group Company (JTEG) (26% / China)
42	Sri Lanka	Colombo South Container Terminal	Construction	Terminal	Greenfield project	Build, operate, and transfer	500	N/A	N/A	China Harbour Enginnering Company Ltd (55% / China), Aitken Spence & Company Ltd. (30% / Sri Lanka)

Note: .. denotes missing data; N/A means not applicable. Investment commitments include payments to the government and investment in physical assets.