

Sector Study

Road Infrastructure (Tolling)



PACRA

Pakistan | Existing Road Infrastructure

Road Infrastructure of Pakistan (Kms)						
Years	Punjab	Sindh	KPK	Baluchistan	GB & AJK	Aggregate
FY17	108,155	81,681	43,151	29,817	1,597	264,401
FY16	107,718	81,624	42,945	29,490	1,579	263,356
FY15	107,992	81,543	43,072	29,742	1,593	263,942
FY14	107,973	81,493	43,035	29,692	1,592	263,785
FY13	107,805	81,385	42,980	29,655	1,590	263,415

- Depiction of existing road infrastructure, over last five years, highlights Punjab province enjoys the major chunk of developed roads
- During FY17, addition of 437kms and 327kms occurred in Punjab and Baluchistan followed by 206kms and 57kms in KPK and Sindh



NHA | Rehabilitation of Roads¹

NHA Network			39 National Highways, Motorways, expressways and strategic roads					
Length of Network			12,131 Kms					
C	n-going Projects	5	50					
С	ost of on-going Projec	ts I	PKR 1,605bln					
	Tenure	2012-13	2013-14	2014-15	2015-16	Total		
Description				Length (Kms	5)			
	Punjab	220.6	227.8	290.8	198.0			
	Sindh	80.9	114.1	106.5	144.6	446.0		
	КРК	82.5	157.7	94.0	94.0	428.2		
	Baluchistan	103.7	217.5	147.0	191.1	659.3		
	Northern Areas	31.8	60.0	63.0	40.1	194.9		
	Gilgit-Baltistan				25.0	25.0		
	M-1	74.9	18.0	48.0	30.0	170.9		
	M-2	-	-	-	-	-		
	M-3	-	40.0	16.7	20.0	76.7		
	Total	594.3	835.1	765.9	742.7	2,938.1		



Motorways/ Expressways | Pakistan¹

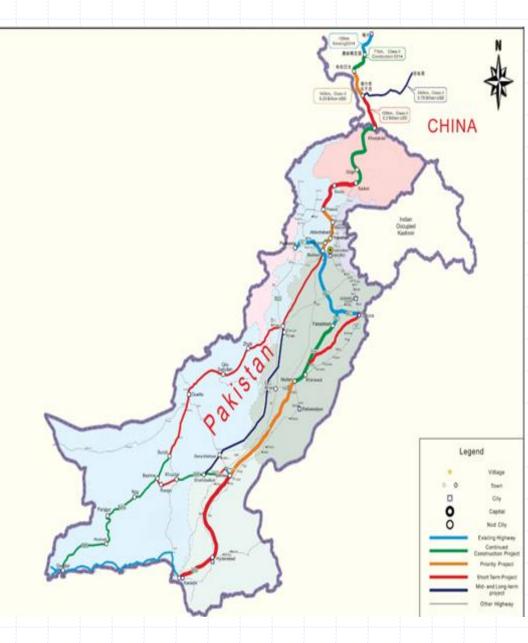
Sr. #	Motorway/ Expressways	Length (Km)	Status
	Islamabad – Peshawar (M-1)	156	Completed
2.	Lahore – Islamabad (M-2)	357	Completed
3.	Havelian – Thakot	120	Ongoing
4.	Hazara Motorway (E-35)	59	Ongoing
5.	Hakla – D.I.Khan	285	Ongoing
6.	Sialkot – Lahore		Ongoing
7.	Lahore – Multan (M-3)	230	Ongoing
8.	Faisalabad – Gojra (M-4)	58	Completed
9.	Gojra – Shorkot (M-4)	62	Ongoing
10.	Shorkot – Khanewal (M-4)		Ongoing
11.	Khanewal – Multan (M-4 Extension)	56	Completed
12.	Sukkur – Multan (M-5)	392	Ongoing
13.	Hyderabad – Sukkur (M-6)	296	Procurement under process
14.	Karachi – Hyderabad (M-9)	136	Ongoing
15.	Pindi – Bhattian – Faisalabad	53	Completed
	Total	2,412	

Pakistan | CPEC Road Map²

• Adjacent map outlines the construction projects of CPEC

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- Construction projects going on includes motorway from Faisalabad to Multan (M-4), Surab to Gawadar (M-8) and Khunjerab to Raikot
 Priority project includes
- highway from Multan to Sukkur and Thakot to Burhan
- Mid-term to long term project includes road from D.I. Khan to Shahdadkot
- Short term project includes road from Raikot to Thakot, Lahore to Khanewal, Burhan to Surab and Sukkur to Karachi





Western Alignment | CPEC¹

Sr. #	Starting Point	Ending Point	Length	Status
1.	Khunjrab	Raikot		Completed
2.	Raikot	Thakot	615	Planned
3.	Thakot	Havelian	118	Ongoing
4.	Havelian	Burhan	60	Ongoing
5.	Burhan (Hakla)	Yank (D.I.I Chan)	285	Ongoing
6.	Yank (D.I.Kharn)	Zhob	235	Under procurement
7.	Zhob	Quetta	331	Feasibility study and design underway
8.	Quetta	Surab	211	Existing rehabilitated
9.	Surab	Hoshab	449	Completed
10.	Hoshab	Gwadar	193	Completed
		Total	2,497	



Central Alignment | **CPEC**¹

Sr. #	Starting Point	Ending Point	Length	Status
1.	Burhan (Hakla)	Pindigheb	61	Planned
2.	PindiGheb	KotAddu	355	Planned
3.	KotAddu	DG Khan	55	Planned
4.	DO Khan	Rajanpur	49	Planned
5.	Rajanpur	Wangu Hills	336	Planned
6.	Wangu Hills	Khuzdar	113	Completed
7.	Khuzdar	Basima	110	Approved
8.	Basima	Hoshab	361	Completed
9.	Hoshab	Gawadar	193	Completed
		Total	1,633	



Eastern Alignment | **CPEC**¹

Sr. #	Starting Point	Ending Point	Length	Status
1.	Burhan	PindiBhattian	293	Planned
2.	PindiBhattian	Faisalabad	53	Planned
3.	Faisalabad	Multan	240	· · · · · · · · · · · · · · · · · · ·
	i) Faisalabad	Gojra	58	Completed
	ii) Gojra	Khanewal	126	Ongoing
	iii) Khanewal	Multan	56	Completed
4.	Multan	Sukkur	392	Ongoing
5.	Sukkur	Shikarpur	37	Completed
6.	Shikarpur	RatoDero	49	Feasibility completed
7.	RatoDero	Khuzdar	180	Completed
8.	Khuzdar	Basima	110	Design in process
9.	Basima	Hoshab	361	Completed
10.	Hoshab	Gawadar	193	Completed
	T	otal Length	1,908	



Road Rehabilitation | BOT/ PPP

The Public Private Partnership (PPP) or Build, Operate & Transfer (BOT) are arrangements between Government (NHA) and the private sector with following procedure;

- **Competitive Bidding**: successful bidder from the private sector incorporates a Project Company Special Purpose Vehicle (SPV)
- **Concession Agreement** between NHA-SPV: includes, inter alia, the accepted bid parameters, scope of work, concession period and other detail necessary which deemed for implementing the project under PPP/BOT arrangement
- Financing arrangements: SPV
- Design, Construction, Operation and Maintenance: SPV
- **Right on Toll/other revenue for a certain period of the project**: SPV (which is long enough to recover its investment with reasonable profit)
- Transfer back to NHA at the end of concession period

Risk factors | BOT/ PPP Arrangements

- Execution Risk | Delays in securing lands/related approvals | in case of new roads
- Completion Risk | Ensuring timely delivery of project | EPC
 Contractor profile | Regular Monitoring
- Operations & Maintenance Risk | O&M Operator
 Adherence to performance parameters
- Revenue Risk | Traffic volume and Toll rates
- Sponsor Risk | Financial muscle and Reputation | Profile and Past record



BOT/ PPP | Key projects¹

Sr. #	Project Name	Length (Km)	Cost (PKR bln)	Status
1.	Overlay & modernization of Lahore-Islamabad (M-2)	357	46	Completed
2.	Habibabad bridge (N-5)	2	0.8	Completed
3.	Karachi-Hyderabad Motorway (M-9)	136	44	Ongoing
4.	Sialkot-Lahore Motorway	91.3	44	Ongoing
5.	Multan-Muzaffargarh-DG Khan (N-70)	80	9.3	Planned
	Total	666.3	144.1	



Bibliography:

- 1. Pakistan Economic Survey 2016-2017, issued by Finance Division of Pakistan Chapter 13-Transport, Page 210
- 2. CPEC official Website, Maps, Highway network of CPEC

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