Hyderabad Mirpurkhas Dual Carriage-way Project Under Public Private Partnership

Project Structure & Risk Matrix

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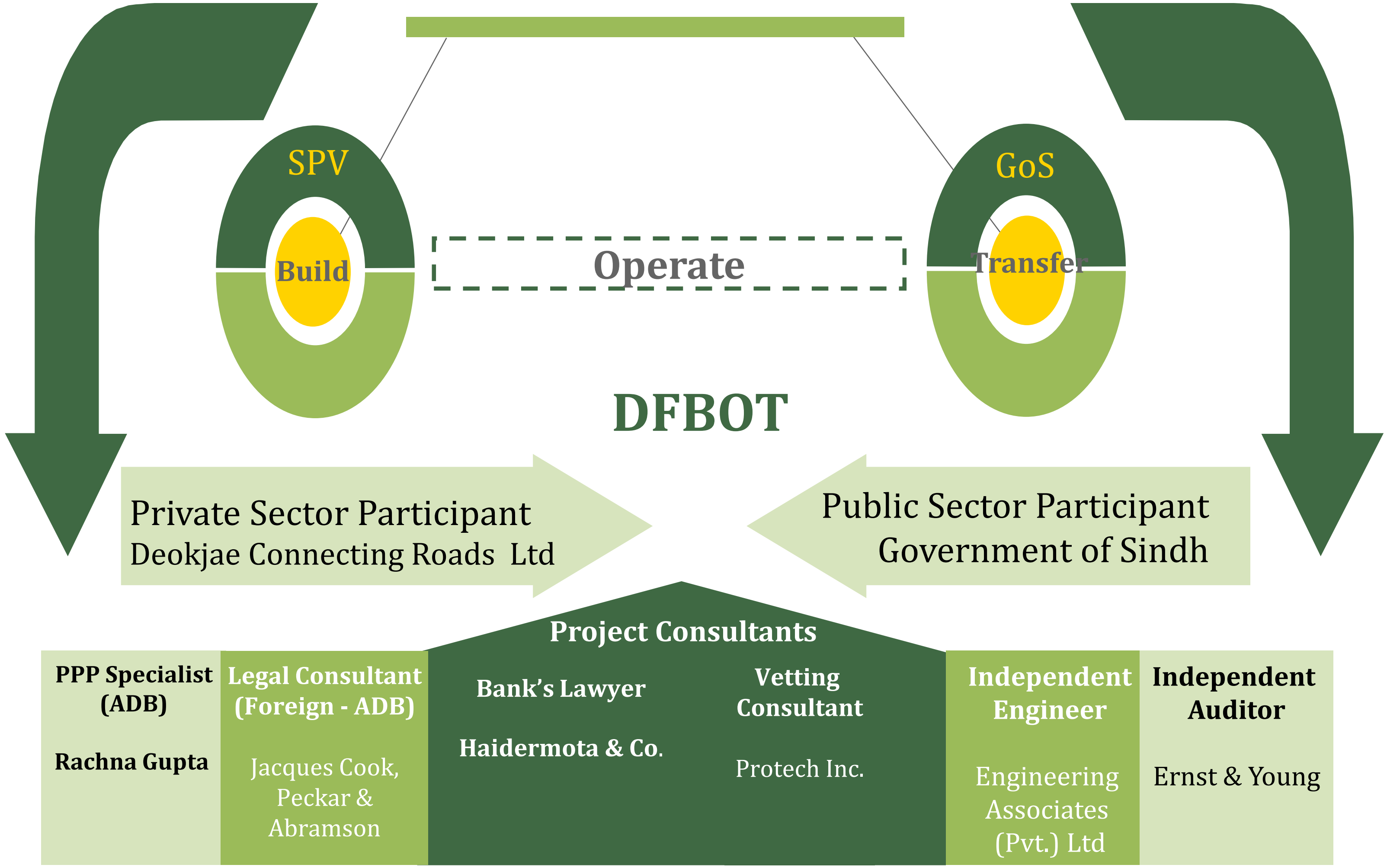
Executive Summary

- Government of Sindh (GoS) formed Public Private Partnership (PPP) Unit in the Finance Department to promote and facilitate development in the province of Sindh
- PPP Unit launched "Hyderabad Mirpurkhas Dual Carriageway" project under the PPP mode, which is the 1st indigenously structured PPP project
- Objectives were:
  - develop infrastructure of the province to facilitate growth and efficiency
  - develop a project structure that is self sustaining and a model for future PPP projects
- To make the project financially viable it was decided to charge toll on the said road to generate revenue
- Under international competitive bidding process, Deokjae (Korea) was short-listed to develop the project under PPP modality.
  - The project is already complete and toll collection has started on the road
  - The project was designed and constructed by firms of international repute
  - Financial close was achieved in March 2011 and the contingent liability of the GoS was taken care of by means of a unique treasury product
- The project structure envisages risk sharing between the GoS and the developer, so that the economic viability and holistic utility of the project is enhanced

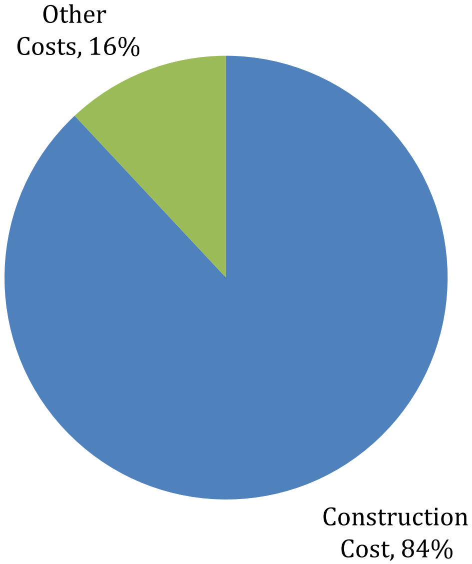
Project Cycle for Hyd-Mirpurkhas Dual Carriageway

60 Km Carriage way between Hyderabad and Mirpurkhas with economic benefit of at least PKR 738 million per year



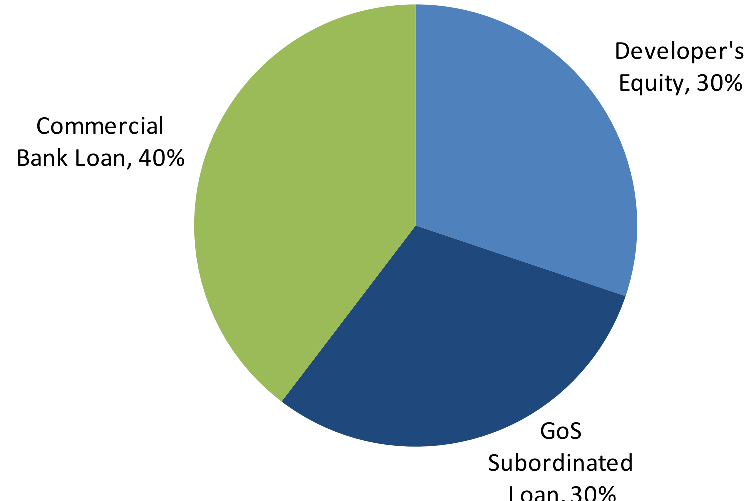
Project Break-down

Break-down of project cost



Cost	PKR m
Construction Cost	5,100
Interest During Construction	296
Engineering Cost	212
Financial & Legal Consultancy	201
Insurance	40
Other Costs	196
Total Project Cost	**6,045***

Break-down of Financing structure



- Commercial loan will be repaid 1st followed by repayments of other subordinated debt and dividend on equity facilities in a proportionate manner
- Any deficit in commercial debt servicing (to the extent of 10% shortfall in projected traffic levels) would also be funded by GoS in the form of Minimum Revenue Guarantee. Additional funding shortfalls would be funded by the developer. MRG funding would carry interest and would be repayable by the project from future cash generations

Financing Structure: Details of Repayment

Commercial loan will be repaid first followed by other payments in proportionate manner

Commercial Loan

Inception	Apr-11
Tenure	10 yrs
Grace period	2yrs
Repayment	8yrs
Interest	3M Kibor+2.5%
Repayment	Quarterly

Proportionate repayments (after repayment of commercial loan)

GoS sub-loan

Tenure	Flexible
Grace period	10 yrs
Repayment start date	Jun-23
Repayment end date	Jun-29
Interest repayment loan & thereafter	4% till of bank 8%

MRG

Inception	Oct-12
Available till	Jun-20
Tenure	Flexible
Grace period	10 yrs
Repayment start date	Jun-23
Repayment end date	Jun-26
Interest	Blended 5%

Developers Equity

- **First dividend repayment date: Jun-21**
- **Equity redemption:**
  - **Start date – Jun-23**
  - **End date – Jun-28**
- Equity redemption allowed amounts equal GoS subordinate loan repayment

Mark-up Subsidy Guarantee

Mechanism	Results
Earlier envisaged GoS would ensure the project gets commercial loan at 10%. GoS intended to lend the banks @7.5% but the banks did not agree so now the transaction will be based on 3M KIBOR + 2.5%. The net result would be an explicit Subsidy named Mark-up Subsidy Guarantee(MSG) for which a Bank Guarantee would have to be furnished upfront	Earlier GoS incurred an implicit cost of PKR 694 million due to placement of funds with Banks @7.5%. Now, the explicit cost may be PKR 828 million at the base case rate

MSG - PKR millions		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Debt outstanding		1,232	2,545	2,450	2,275	2,036	1,734	1,368	986	605	127
Interest absorbed as MSG											
Base case	5.39%	(66)	(137)	(132)	(123)	(110)	(93)	(74)	(53)	(33)	(7)
Total payment-base	**(828)**										
Best case	2.39%	(29)	(61)	(59)	(54)	(49)	(41)	(33)	(24)	(14)	(3)
Total payment-best	(367)										
Worst case	8.00%	(99)	(204)	(196)	(182)	(163)	(139)	(109)	(79)	(48)	(10)
Total payment-worst	(1,229)										

**All numbers are tentative and based on different permutations of the base rate*

GoS Soft Loan

Mechanism	Benefits
GoS will inject soft loan in the project during the construction phase and it would be paid back in pro rata basis after the full repayment of commercial debt.	The alternative model followed in the region is that the Govt. gives an upfront grant upto 40% to 60% of the project cost, which would have amounted to about PKR 3 to 3.5 billion on the Indian model

Minimum Revenue Guarantee

Mechanism	Benefits
GoS will provide MRG in two forms: The project already has a short fall in its debt payment structure that would mean that GoS will have to support it debt payment structure in the form of bridge financing facility; under current set up it would be to the tune of PKR 964 million. On the other hand, the 2nd part of MRG would cover revenue short fall guarantee up to 10% if it exceeds 10% then the developer will need to inject capital in the form of equity or debt.	The MRG loan stands at PKR 1750 million, which will be returned along with the interest after the commercial debt is repaid. MRG also gives a minimum revenue guarantee of 10% which contingent and amounts to PKR 426 The alternative route is to give a direct cumulative grant at the start of the project amounting to PKR 3 billion

Overall Scenario due to transaction structure

Our Structure	Alternative
Our nominal cost at base case MSG= (PKR 828 million) deferred MRG & Soft-loan interest income **Total returns with opportunity costs = (PKR 1160 million)**	**Indian support:** upfront non-recoverable grant of PKR 2.5 billion keeping in view the nature of project **Korean Support:** MRG support usually comes up to 80% which would have been PKR 104 billion for our project **Egypt** recently gave 100% MRG for its highway project from Cairo to Alexandria for 70,000 vehicle traffic- 100% MRG for our project would have been around PKR 130 billion

Advantages	Disadvantages
Cost savings Model for other projects in the Country	Complex structure

**All numbers are tentative and based on different permutations of the base rate*

Achievements & Cost comparison of Hyderabad Mirpurkhas Road Project

- The first developer bid for construction cost (CC) was **PKR 9.8 billion**
- First round of negotiations brought down CC to **PKR 6.2 billion**
- The final round of negotiations, with the help of Works and Service Department and ADB consultants, brought down the CC to final Price of **PKR 5.1 billion (Cost per 75 million per km)**
- NHA data on Sindh road project's cost overrun most of which have not been completed to-date

Project	Estimated costs (PKR millions)	Expenditure upto June 2009 (PKR millions)	Cost overrun todate over initial estimates	Cost comparison per Km basis
Interchange on M-2(Khanqah Dogran)	148	325	119.33%	-
Gwadar Turbat Hoshab Section of M-9	6,000	10,513	75.22%	78
Karachi Northern Bypass	2,928	4,596	56.98%	81
Islamabad Peshawer Motorway(M-I)	26,862	39,636	47.55%	79
Lyari Expressway, Karachi	5,081	7,152	40.76%	224
N-65 Nutal, Sibi Dhadar Section	2,266	3,093	36.50%	62
Mansehra Naran Jalkhad Road	3,821	5,124	34.09%	114
Realignment of N-65 near Jacobabad	478	599	25.39%	-

Note: These projects were initiated some 6-10 years ago when the cost must be much lower.

Financing Structure Evolution

Milestone	GoS offer
At the RFP GoS offered	▪100% revenue guarantee ▪Commercial debt raising guarantee with subsidized Soft loan
In negotiation with the developer the GoS settlement	▪10% revenue guarantee ▪Lien on funds placed with the banks for interest rate subsidy ▪Soft loan
In negotiation with the banks the GoS settlement initially	▪MRG : PKR 1023 million + PKR 426 million (10% contingent) ▪Pre-construction toll payment in lieu of political risk of PKR 250 million made part of project costs ▪Only interest rate subsidy by fund placement with no lien but with implicit opportunity costs ▪Soft loan: PKR 1.75 million
Final package	▪MSG of PKR 551 million based on current rates ▪Soft loan: PKR 1.75 billion ▪MRG (also a soft loan) : PKR 1279million + 426 million (contingent 10%)

HMDC risk sharing

Technical Risk	Borne by	Mitigating Factors
Design Risk	○	Vetting, reviewing & IE all helped to mitigate this risk
Delay Risk	○	Fixed by placing the penalty clauses, GOS has mitigated this risk
Escalation Risk	◐	Fixed project as decided with the developer has transferred the risk appropriately
Inflation Risk	○	The inflation risk has been incorporated in the fixed price contract
Efficiency Risk	○	Appropriate checks and balances & effective use of IE will help ensure that efficiency is obtained
Commercial Risk	◐	GoS is undertaking demand risk till commercial lending is repaid, so, risk is solely borne by Developer. However, if demand is lower than projected, GoS loan may be jeopardized
O&M Risk	○	Entirely borne by Developer
Project Abandon Risk	○	If Developer abandons the project, it would be assumed by the Govt. and if IE and other mechanisms work well, GOS would have a developed facility
Govt. Financial Risk	◐	GoS is financing only 30% of the project cost and MRG support however in the event of default the Govt. will end up with the developed facilty as per termination clause of concession agreement
Debt Financing Risk	◐	Moderate to high, because GOS is assuming debt arrangements and its repayments which is not common in PPP's
Interest Rate Risk	◐	Fixed interest rate arrangements helped in mitigating this risk
Currency Risk	○	Developer is responsible for currency risk

● GoS Risk ◐ Equal Risk of Developer & GoS ○ Developer Risk

GoS Exposure: Cost Escalation

Restricted Components for Cost Escalation

- Diesel
- Cement
- Steel
- Bitumen

These restricted components form 30% of the total cost of the project

Cost Escalation

- Upto 10% escalation provisioned in current project construction cost estimate
- Above 10% Shared equally by GoS and the Developer

Cost Escalation %	Cost Escalation Charges	Absorbed by the Project	Developer Share	GoS Share
10%	PKR 139m	PKR 139m	Nil	Nil
20%	PKR 255m	PKR 139m	PKR 58m	PKR 58m
30%	PKR 353m	PKR 139m	PKR 107m	PKR 107m
40%	PKR 437m	PKR 139m	PKR 149m	PKR 149m

Default Scenarios

Lender's Risk

Deokjae Default

a)Retendering procedure

- Highest tender price **adjusted for outstanding bank loan** before developer is compensated

b)No Retendering procedure

- Step-in rights for lender, or
- Termination calculation expert appointed to compute compensation amount **after adjusting debt**

GoS Default

- Under this scenario it becomes binding on **GoS to repay the loan** via concessionaire under Section 22.3(a)(i) of concession agreement

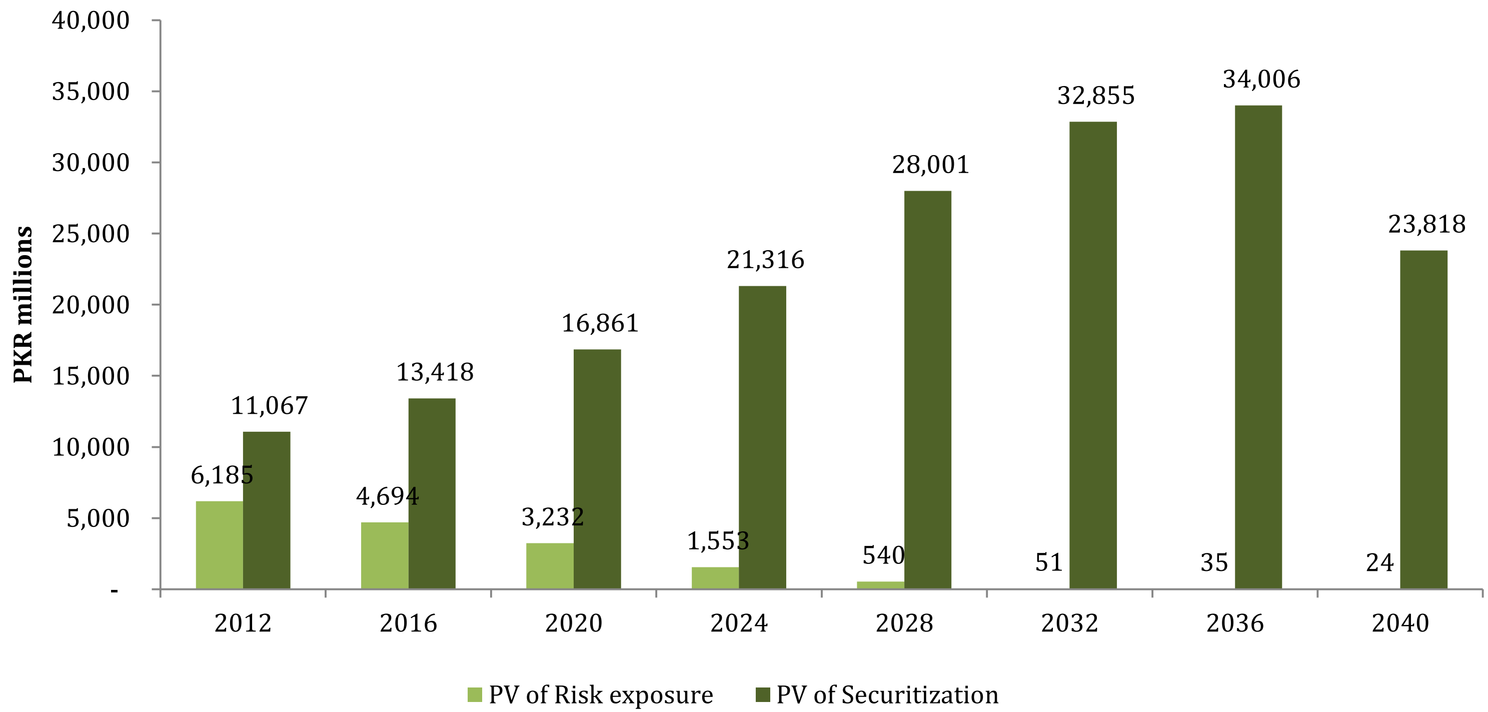
Force Majeure

- Under this scenario it becomes **binding on GoS to repay the loan** via concessionaire under Section 22.12(a) of concession agreement

Overall Scenario Matrix

Triggers/milestone	Base case	GoS Default	Developer Default	Force Majeure
Loan take-up		✓	✓	✓
Compensate Developer		✓		✓
Project Completion	✓	✓	?	

Default: Risk exposure versus Securitization



After the project is completed, the GoS risk exposures are largely mitigated by securitization of assets worth more than the cumulative risks, thereby, the risk of the GoS is negligible

Thanks