Why projects fail ?

Presented by:
Huzefa Mazahir Ali
Principal, Transaction Advisory Services
EY Ford Rhodes

Building a better working world

Local projects

Nandipur power plant failure: what needs to be probed?

DAWN News
Ahmed Faraz Khan September 13,2015

Lyari Expressway: Where there's no will, hence no way

Tribune Express
Aysha SaleemPublished May 16, 2016

Islamabad airport audit exposes anomalies

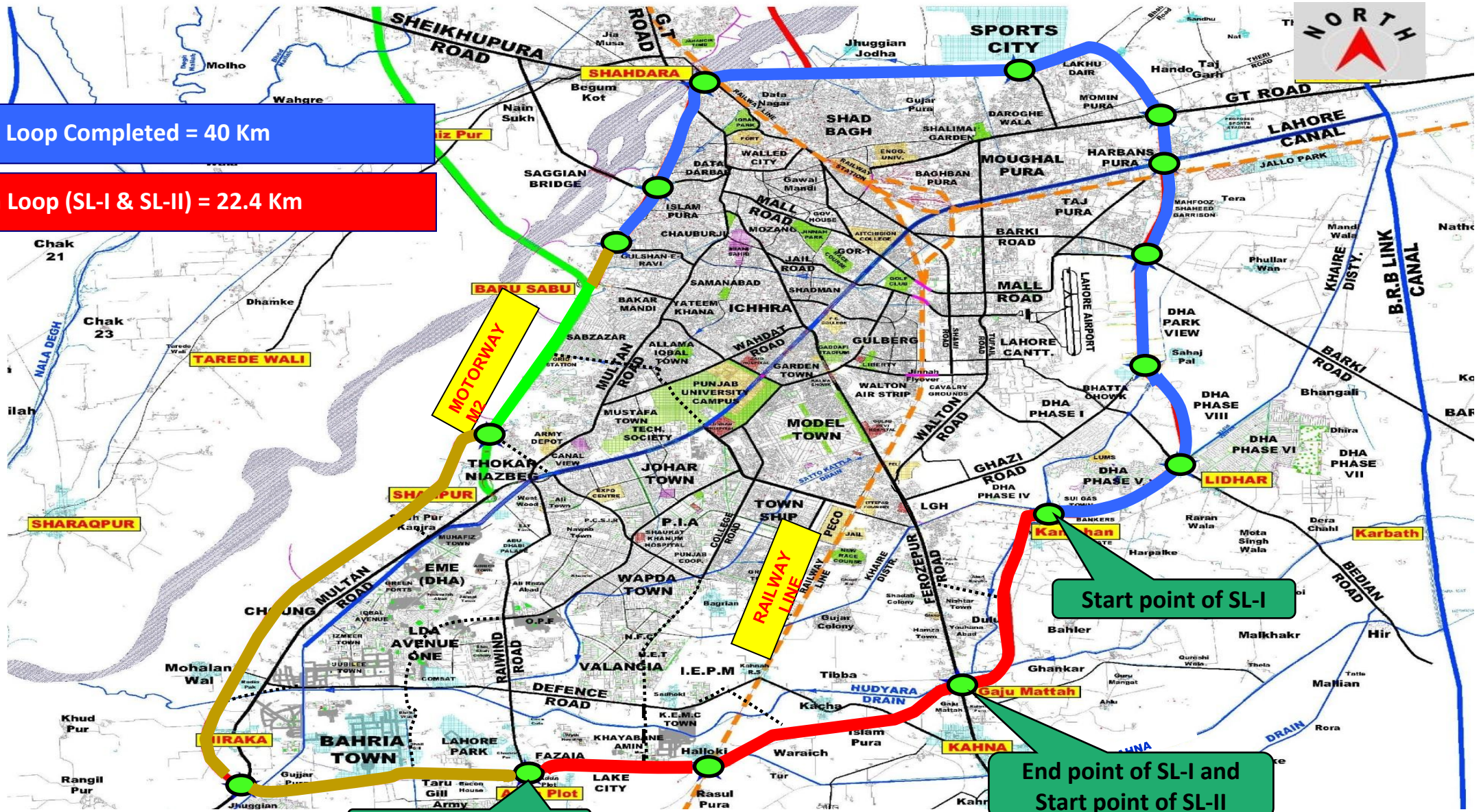
Tribune Express
Riazul Haq August 28, 2017

Neelum project may need to be redesigned

The Nation
Ahmad Ahmadani February 20, 2013

Lahore Ring Road (SL1 & SL2)

- Northern Loop Completed = 40 Km
- Southern Loop (SL-I & SL-II) = 22.4 Km



Lahore Ring Road (SL1 & SL2)
Procurement options

Option 1
Self finance

Option 2
Borrowing
(Bank / Bonds)

Option 3
Public Private
Partnership

- Self finance was always an option. In 2008, the Project cost was estimated at **PKR 10bn**. By 2016, Project stood **unconstructed**.
- Project cost estimate, in 2016, was **PKR 24.4bn**.

Key constraints

- **Limited space** available in provincial Annual Development Plan (ADP).
- Based on LRRA experience, funding from ADP likely to be available at maximum **PKR 6.0bn / year**. Hence, the Project could not be completed before **2021**.
- Subsequently, Project cost would have escalated to PKR **28.6bn** (@ 6% annual inflation).
- Furthermore, self finance would have also **increased Project Lifecycle Costs** (construction cost + O&M costs over 25 years). These mainly include:
  - Construction delay overruns risk
  - Maintenance delay overruns risk
  - Design and quality risks
  - Toll collection risk
- Other qualitative risks included:
  - Political risks leading to non completion
  - Social and economic risks

Lahore Ring Road (SL1 & SL2)
Procurement options

Option 1
Self finance

Option 2
Borrowing
(Bank / Bonds)

Option 3
Public Private
Partnership

Northern Loop Experience

- Original project cost was estimated at **PKR 17.9bn**. Project was completed in **PKR33.4bn**.
- Original estimated construction period was **2 years**. Project was actually completed in **6 years**.
- Delays in maintenance funding have resulted in **additional expenditure** due to cost escalation, increased maintenance etc.

Lahore Ring Road (SL1 & SL2)
Procurement options

Option 1	**Option 2**	Option 3
Self finance	Borrowing (Bank / Bonds)	Public Private Partnership

- Historically, **low comfort** shown by banks to finance government for such large projects in the road sector.
- Banks required debt to be **fully secured against collateral**.
- Possible forms of collateral may include:
  - Sovereign guarantee by the Federal Government – not available
  - Cash or cash equivalents – not available
  - LRRA real estate assets – not more than PKR 4.0 billion.
- Issuance of bonds would **not have been immediately possible** due to non operationalization of debt ceilings assigned by CCI to provinces.

Lahore Ring Road (SL1 & SL2)
Procurement options

Option 1	Option 2	**Option 3**
Self finance	Borrowing (Bank / Bonds)	**Public Private Partnership**

- Previously, there had been **two** attempts at procuring SL under PPP
- SL was originally conceived under BOT in 2012. However, market feedback showed lack of confidence on the traffic numbers and project viability based on SL toll alone. Market was not willing to assume traffic risk for a greenfield project.

2013 — Attempt **01**

In 2013, SL was structured under a 15 year BLT model where the traffic risk was fully assumed by GoPb. However, the bids received were too high due to longer term of the project and were rejected.

2015 — Attempt **02**

In 2015, changes were made to project structure to shorten project term to 8 years and remove O&M component (BT model – deferred payments).

- Bid received was substantially higher than the estimates as the bidder priced the risks associated with unsecured GoPb contractual commitments
- Bidder was unwilling to reduce bid unless GoPb fully secured debt termination obligations with collateral – Not possible post bidding

Lahore Ring Road (SL1 & SL2)
Implemented project structure

- The Project is structured as a BOT with a 25 year term.
- Concessionaire's responsibility includes:
  - Construction of SL.
  - Operation and collection of tolls on NL (LRRA will continue maintenance of NL).
  - Operation and Maintenance of SL.
  - Two overlays on SL during the Concession period.
- Probable upside in traffic is captured through sharing of toll collection from excess traffic (above 120%) between LRRA and the Concessionaire in the ratio of **70:30**.
- As quid pro quo, Minimum Revenue Guarantees (MRG) is provided to share the downside traffic risk below 80% on a **50:50** basis.

To enhance Project viability

- The Concessionaire has the right to collect toll on NL from financial close and on SL from COD.
- GoPb provided upfront financial support to reduce project cost.

To enhance Project bankability

- LRRA provided its available assets of PK4bn as collateral.
- Assignment of NL tolls.
- Provincial support agreement to backstop LRRA contingent obligations

- The Project was awarded to FWO in June 2016
- Upfront GoPb support was capped at PKR 6bn. Transaction concluded at PKR 4.25bn support

First Major PPP of GoPb, First limited recourse project financing of a road project.

Dhabol Power Company

Distinctive features

- The single largest direct foreign investment in India's history - **~$ 4 billion**
- **Largest** energy infrastructure **project** in India
- First Indian government **guarantee of a foreign corporations'** liabilities
- **Default by sole off taker** - **Maharashtra State Electricity Board** (MSEB), the local state run utility
- **Defaults** by both federal and state owned governments **on guarantees**
- **Bankruptcy of principal project developer**
- Limited effectiveness of **international arbitration** process

Power purchase agreement

BOO - 20 years

Tariff

Rs. 8 per unit Kwh

MSEB - Offtake guarantee

90% of electricity produced

Input price risk

MSEB to bear any increase in fuel prices

Phase 1

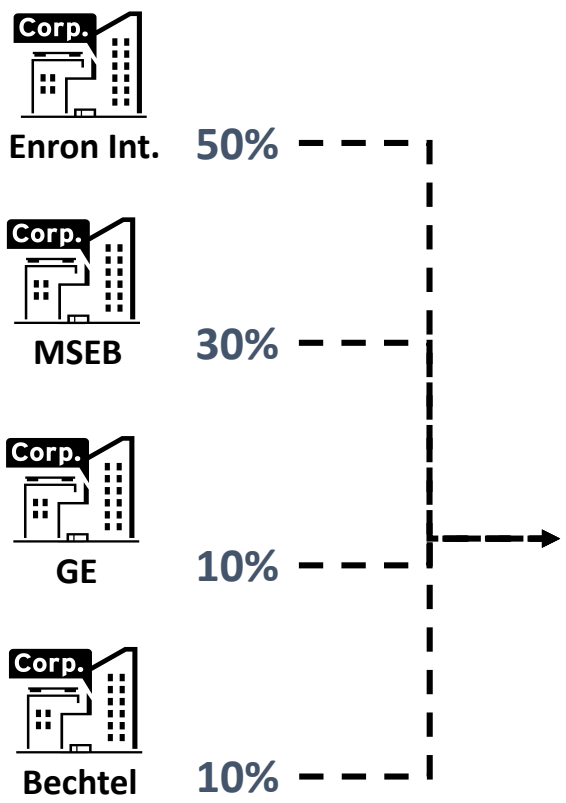
- **Capacity:** 740MW
- **Cost:** $1.078b
- **Fuel:** Naphtha

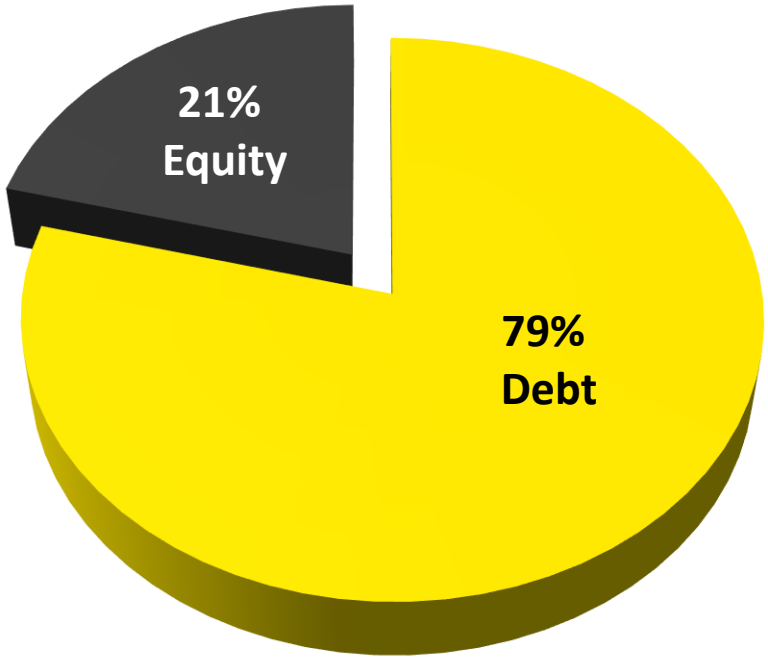
Phase 2

- **Capacity:** 1,275MW
- **Cost:** $3.5b
- **Fuel:** LNG

Dhabol Power Company

Financing structure





$1020m
Indian Bank Consortium

$598m
US Eximabnk

$300m
Bank of America & AMN Amro

$433m
Japanese Export Credit Agency

$96m
Industrial development bank of India

Dhabol Power Company

Project timeline

- **1993 – 1995** | Government of Maharashtra, GE, Enron, Bechtel sign PPA and Construction of phase I began
- **1996** | Project scrapped because lack of transparency, alleged padded costs, and environmental hazards. **MSEB, was required by contract to continue to pay Enron plant maintenance charges, even if no power was purchased from the plant.**
- **1996 – 1999** | Renegotiation; Construction of phase I resumes; Phase I becomes operational; **first phase went online May 1999, almost two years behind schedule, and construction was started on phase two.**
- **2000** | Cash flow from the MSEB, the sole offtaker, had stopped. **Cost of fulfilling its take or pay purchase promise would constitute half of the MSEB's entire budget**
- **2001** | Enron files for Bankruptcy**; Lacking income, the 740 MW Phase I power station was shut in June 2001, with all employees terminated.**

Dhabol Power Company

Project timeline

- **Oct 2005** | The project was taken over by a conglomerate that included **public sector banks, MSEB, GAIL, NTPC and some financial institutions**.
- **May 2006** | Ratnagiri Gas and Power Pvt Ltd (RGPPL), a special purpose vehicle **started operation**.
- **July 2006** | RGPPL shutting down the plant due to a **lack of naphtha supply**.
- **2009** | The Dabhol Power Plant Project is operational with **900 MW RLNG fired running capacity**.
- **March 2010** | RGPPL now owns the project made all six gas turbines operational earlier this year, **achieving full capacity of 1,940 MW**.
- **Nov 2010** | half yearly profits at **Rs 220 crore during the current fiscal.**

Dhabol Power Company

Key issues

- No competitive bidding
- Project costs and power tariffs were higher than other power projects in India
- Failure of MSEB’s commitment and guarantees
- Poor economic assumptions (In 1993, World bank was approached by and it concluded that the Dabhol plant was “not economically viable.”)

Thank you