North Luzon Expressway

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Outline

- Magnitude and Cost
- Social and Economic Benefits
- Technical Issues/Innovations
- Sample Social Problems and Policy Changes
Magnitude and Cost

- **Location**
  Manila, Philippines
  - Connects Metro Manila to the Central Luzon Region
- **Construction started in 2003**
- **Completed and Opened in 2005**
- **Cost** $371 million
- **PPP Project**
- **8 lane hwy= 4 lanes in each direction.**
  - 6 lane hwy (3 in each direction) in narrow sections.
- **Average speed limit 80-100 km/h (50-60 mph)**
Magnitude and Cost

- **Project type**
  - Motorway (rehabilitate-operate-transfer project),
  - bridges
  - overpasses
  - toll plazas

- **Estimated investment**
  - $371m = 253m public + 118m private
  - Public = 6 international financial institutions and 6 commercial banks
  - Private = 4 Companies
    - Philippine Lopez Group
    - Philippine National Construction Corporation
    - Leighton Construction
    - Egis Projects

- **Concession period**
  - 30 years including construction time
Social and Economic Benefits

• Prior to Expressway
  – Original Road
    • To narrow
    • Pot holes
    • Flooded Sections in low lying plains
    • Traffic congestion

• Benefits
  – Reduced traffic congestion
  – Reduced travel time
Social and Economic Benefits

• Employment increased
  – 5,000 new jobs

• Increased Traffic Volumes
  – 220,000 drivers/day

• Regional Economic Progress
  – Increased tourism to country side
    • North Philippines Visitor’s Bureau

• Increased Safety
  – Speed limit strongly enforced
  – Wider lanes
Technical Issues

- Flood planes and low lying areas
  - Viaducts used to traverse areas
Innovation

- Traffic Management System
  - 27 message display boards
  - Control over toll gates
  - Alerts public of scheduled maintenance and potential slow downs
    - Newspaper
    - TV
    - Radio
    - Updated website www.mntc.com
Innovation

- Electronic Toll plazas
  - Cashless Toll collecting system
    - Transponders
  - Prepaid Magnetic Swipe Cards
- Traditional Cash toll booth
Innovations

• Strict speed enforcement
  – Speed gun
  – Closed Circuit Television

• Catches speeders over 100 km/hr

• Citations given speeders at toll booths

• Weigh stations for heavy vehicles
  – Reduce overloaded vehicles on expressway
Policy Changes

- Prior to construction
  - Legal framework for tollways in place
- Philippine BOT Law – 1994
  - Legal framework for the PPP
  - Minimal government regulation
  - Private sector main engine for growth
- Creation of Manila North Tollways Corp. 1997
Stake Holders

- First Philippine Infrastructure Development Corporation (FPI DC)
- Philippine National Construction Corporation (PNCC)
- Egis S.A. of France
- Leighton Asia Ltd. of Australia
Policy Changes

- Change of operators
  - Philippine National Construction Corporation (PNCC)
  - Egis S.A. of France
    - World largest toll road operator (over 6,000 km in managed toll roads)

- Toll increase 700%
  - 2.50 peso/km (5 cents)
  - 190 peso - Class 1
  - 500-600 pesos - Class 2 and 3
Social Problems

• Corporate Social Responsibility (CSR)
  – **Environment**
  – **Housing**
  – Health
  – Education
CSR-Environment

- Ambient Air Quality Study - 2007
  - Pb, CO, NOx, Sox
- Greening the NLEX
  - Goal to plant 20,000 trees
CSR-Housing

- P7.5 million for low-income housing (Gawad Kalinga)

- 1st MNTC-GK Village in Marilao, Bulacan 2005
  - 10 k away from Marilao Exit
  - 50 Dilapidated houses – homes with gardens and picket fences

- 2nd MNTC-GK Village in Valenzuela City.

- 3rd MNTC GK Village in Pandi, Bulacan.
  - Built houses for families evict from land to build North Railway
Summary

• Magnitude and Cost
• Social and Economic Benefits
• Technical Issues/Innovations
• Sample Social Problems and Policy Changes
Thank You


- "North Luzon Expressway, Manila -." Road Traffic Technology. 27 Feb. 2009  


- "Take over of the operation of the North Luzon Expressway (84 km), Philippines." Egis Projects. 03 Mar. 2009  