Jamuna Bridge - Infrastructure Investigation

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Layout

- Objectives
- Why we choose this bridge?
- Location
- Technical issues
- Construction and Financial Issues
- Economic Impacts
- Social and Environmental Impacts and Challenges
- Conclusions
Objectives

i. to develop knowledge about financial challenges of mega-project

ii. to know about social benefits and environmental impacts of the project

iii. to understand risk and uncertainties of mega projects.
Why we choose this bridge

- **11th** longest in the world and **2nd** longest in South Asia (after Mahatma Gandhi Setu-India)
- Constructed over the Jamuna River, mightiest of the three major rivers of Bangladesh, and **5th largest** in the world in terms of volumetric discharge
- Linking between **Asian Highway** and Trans Asian Railway – A route between Asia and Europe
Location

- Located in the south of Asia
- 110 Km northwest of capital (Dhaka)
Technical Issues

- **Sub-Structure:**
  - Pier # 50, Pile # 121

- **Super-Structure:**
  - **Length** – 4.8 Km
  - **Width** – 18.5m
  - **Design life** 100 years
  - **Method:** *Balanced cantilever design*
Construction & Financial Issues


i) **Main bridge** – March 1994 to November 1997

ii) **River Training** - February 1994 to June 1996

iii) **Approach Road East side** – March 1994 to March 1996

iv) **Approach Road West side** – March 1994 to March 1996

**Donor Agencies:**

- The World Bank (IDA) US$ 200 million
- The Asian Development Bank (ADB) US$ 200 million
- The Government of Japan (OECF) US$ 200 million
- The Government of Bangladesh US$ 350 million

Total US$ 950 million
Economic Impacts

- Increased connectivity and enhanced economic opportunities
- Reduce travel time (8 – 4 Hr)
- Reduce freight Cost ($6.61 to $4.7)
- 0.97M person became economically stable
Contd.

- Transport cost reduced
- Easy and reliable means of transport for natural gas, electricity, telecommunication
- High rate of revenue collection (recovery time 30YRs)
- Annual toll revenue amounts to US$24 million for FY 2006-07
Contd.

- IRR of the project 14.5%
- Open up for more funding to other projects
- Protection of environment
Contd.

- Safe journey
- Poverty reduction
- It generates multifarious benefits promotes inter-regional trade in the country
Social Impacts and Challenges of the Project
Social Impacts and Challenges of the Project

1) Direct or Indirect Impacts:
   - 100,000 people were affected
   - difficulties in identifying all the impacted households

2) Land Acquisition:
   - around 5,680 acres
   - 15,000 households affected

3) Resettlement and compensation
   - over $40 million
   - Participation of Major NGOs
Environmental Policy

- Rehabilitation of the environment which could be affected by this project
- Participation of Major NGOs
Environmental Policy

- Monitoring Construction related environmental impacts
- Wildlife monitoring and protection programs
- Trees have been planted
- Health education campaigns have been completed
- Monitoring Water quality and the effects on wildlife
Social Benefits of the Project
Social Benefits of the Project

(1)

30 million people connected together connecting western part with the developed eastern part
Social **Benefits** of the Project

(2)

Safe journey:
Replaced the traditional ferries, manually operated boats etc.
which were **time consuming** and **risky**
Social **Benefits** of the Project

(3) Poverty reduction:
One of the biggest targets and greatest achievements

* The North-Eastern part of the country has the most Poverty problems.

Data from "Poverty in Bangladesh: Building on Progress"
World Bank Poverty Assessment 2002
Any Comment/ Question Appreciated

Thank you Very Much!