

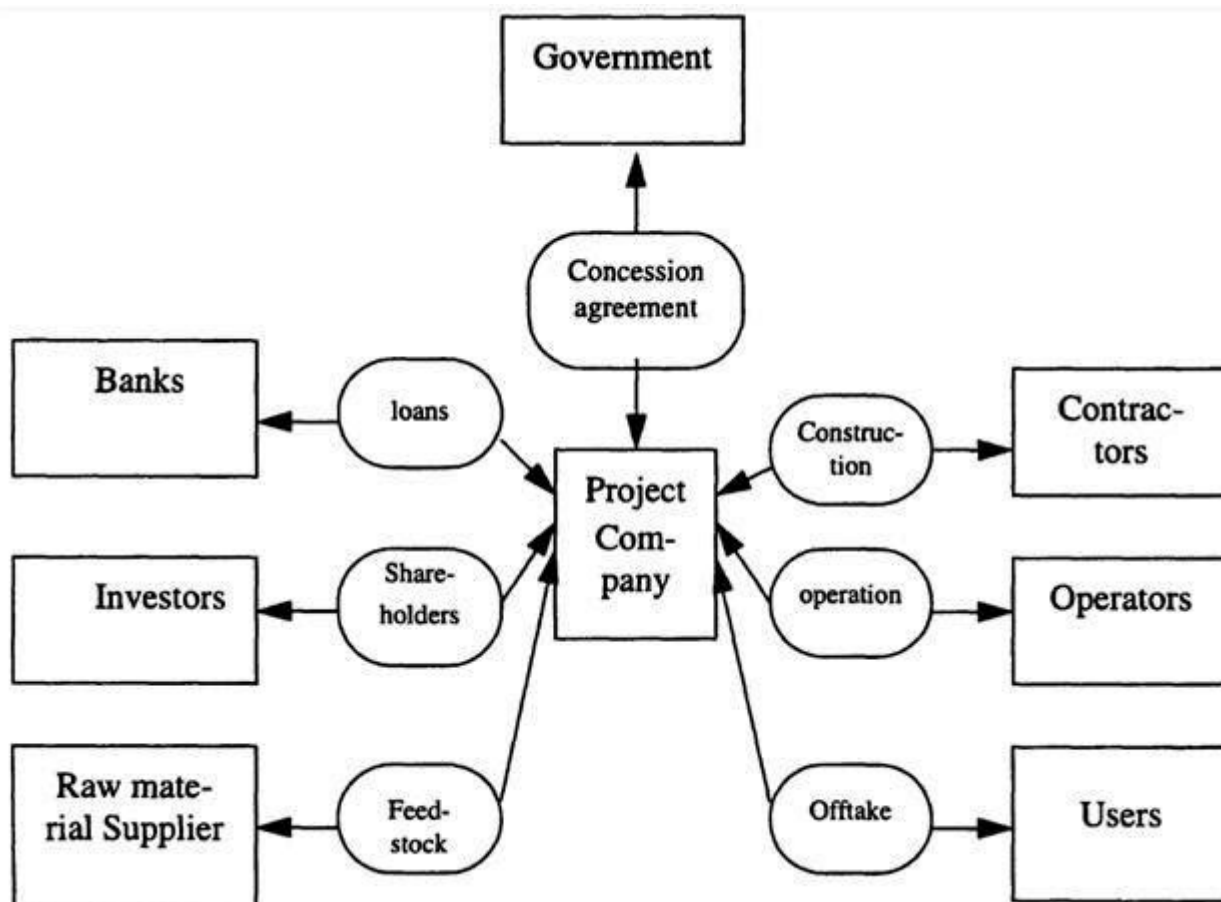
## Risks in Financing BOT Roads

### Why in news?

The National Highway Authority of India (NHAI) has planned to award at least 8% of the targeted road development for the current fiscal through Build-Operate-Transfer (BOT) route.

### What is a Build-Operate-Transfer (BOT) Contract?

- A build-operate-transfer (BOT) is a [Public Private Partnership \(PPP\) model](#) used to finance large projects, typically infrastructure projects developed through public-private partnerships.
- BOT projects are normally large-scale, greenfield infrastructure projects that would otherwise be financed, built, and operated solely by the government.
- Under a build-operate-transfer (BOT) contract, an entity (usually a government) grants a concession to a private company to finance, build, and operate a project for certain period.
- After that period, the project is returned to the public entity that originally granted the concession.



## What are the issues of concern?

- Recently, credit rating agency ICRA published its study of 120 BOT road projects that have defaulted during the last decade.
- The Enforcement Directorate (ED) attached assets of the promoters of Ranchi Expressway Ltd, on the charges of fraud and money laundering.
- The study by ICRA has revealed that 70% of the sample projects defaulted during the operational phase, largely on account of lower than envisaged traffic and authority-related issues.
- Only one-fourth of the projects could come out of default and nearly 16% of the projects were terminated.

## What are the risks associated with BOT model?

- **Risk during execution stage**
  - Ability of the concessionaire/sponsor to raise the requisite funding
  - Timely availability of right-of-way and various approvals including environmental clearances
  - Changes in design/scope of work
  - Terrain conditions
  - Local government or judicial interventions
  - Cost-overrun
- **Risks after the operationalization**
  - Revenue shortfall
  - Flawed traffic projections which are made in the absence of any reliable historical data
  - Mortality of a long-term loan
  - Development of alternative routes and modes of transport
  - Local political conditions
  - Natural calamities
  - Changes in laws
  - Poor maintenance

## References

1. [The Hindu Businessline | It's risky financing BOT roads](#)
2. [Investopedia | Build-Operate-Transfer Contract](#)
3. [LMS Indian Economy | EPC Model](#)

## Quick facts

### Engineering, Procurement and Construction (EPC) model

- This is a PPP model for the development of infrastructure projects especially highways.
- Under this model, the cost is completely borne by the government.

- Procurement of raw material and construction costs are met by the government.
- The private sector's participation is minimum and is limited to the provision of engineering expertise.
- Issue - High financial burden for the government.

### **Hybrid-Annuity Model (HAM)**

- HAM is a mix of the Engineering, Procurement and Construction (EPC) and Build, Operate, Transfer (BOT) models.
- HAM combines 40% EPC and 60% BOT-Annuity.
- It was introduced in 2016 to recover investments in road infrastructure projects.

