

Different Types of Investment Models and the Challenges in NH Construction

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What's in today's article?

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- What is the Need of the Different Investment Models?
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- What is the Engineering, Procurement and Construction (EPC) Model?
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- What are the Challenges in NH Construction?

Why in News?

- Credit rating agency CareEdge Ratings expects the execution pace of national highways (NH) in India to decline by 7-10% year-on-year – from 12,350 km in FY24 to about 11,500 km in FY25.
- This is mainly because projects under the **hybrid annuity model (HAM)** – a PPP model that combines EPC and BOT models – haven't taken off as anticipated.

What is the Need of the Different Investment Models?

- If India wants to achieve double-digit growth, **infrastructure development** will be critical.
- As a result, the Government of India **has increased investment in the infrastructure sector**, which can be better utilised through efficient distribution of funds as well as consistent and uninterrupted implementation of infrastructure projects.
- For the smooth implementation of such plans, the government may occasionally involve and enter into contracts with other private companies and such contracts are known as **public-private partnership (PPP)**.
- In these agreements, **a private entity is hired by the public body** and is remunerated on a performance basis.
- They are typically **long-term arrangements** (for a 20-30 years term), whose rationale is to **combine the capabilities** of the public and private sector to achieve optimal results.
- Such models are intended to enable the completion of projects in a **timely and cost-effective manner**.
- Some of the important types of PPP contracts are **BOT**, Build-Own-Operate (BOO), Build-Operate-Own-Transfer (BOOT), Buy-Build-Operate (BBO).

What is the Build-Operate-Transfer (BOT)?

- **Meaning:**
 - Under this, a private player is granted a concession to finance, build and operate a project for a set period of time (20 or 30 years).
 - The developer recovers its investments through user fees or tolls charged to customers who use the facility, after which it is taken over by the government.
- **Pros of BOT model:** Partnerships between private companies (contributes by bringing **technology and innovation**) and governments (**provides incentives** for the private sector to deliver projects on time and within budget) provide advantages to both parties by –
 - Improving the operational efficiency of providing public services.
 - Creating economic diversification.
- **Downsides of BOT model:**
 - **Private partners may face special risks:** Such as the construction risks, availability (of promised services) risk, demand risk, etc.
 - **Lack of accountability:** Partnerships may shield the private players from accountability to the public, offering subpar service.
 - **May Lead to monopoly of private entities:** The private partner may be in a position to raise tolls, tariffs and fees for consumers who may be compelled to pay for their services.
 - **Can result in crony capitalism:** This may facilitate corrupt dealings, pay-offs to political cronies and general rent-seeking activity.

What is the Engineering, Procurement and Construction (EPC) Model?

- **Meaning:**

- These are the contracts used primarily in **complex industrial and infrastructure projects** like power plants, bridges, dams etc.
- It entails a **contract between the owner and a contractor** who is responsible for delivering specified design, construction, logistics, transportation and other associated activities to the Project financier.
- **EPC vs PPP:**
 - In the PPP model one party is a government or public sector enterprise and the other is a private party while the EPC model can have **two private entities as parties to the contract**.
 - **In the PPP model,**
 - While implementing the project, if there is a delay in the project, the private entity will have to fix the problem, which will incur expenditures.
 - It will now have to submit a new offer to be compensated for the costs incurred and have to deal with the government's slow machinery in order to get the new proposal approved.
- **In an EPC model,**
 - The government would invite individual bids for engineering expertise, raw material procurement and actual construction work.
 - **The government carries the whole financial burden and** will handle any difficulties that emerge.
 - As a result, the private party can concentrate on project planning and design, **boosting the project's efficiency**.
 - As a result, the Government of India chose the EPC model over the PPP model for national highway construction.

What is the Hybrid Annuity Model (HAM)?

- **Meaning:**
 - As the name suggests, it is a mix of the EPC and BOT models.
 - Under the HAM model, 40% of the project cost is paid by the government as construction support to the private developer, and the remaining 60% is to be arranged by the developer.
 - Here, the developer usually invests not more than 20-25% of the project cost, while the remaining is raised as debt.
- **Importance:**
 - HAM arose from the need for a more efficient financial mechanism for road development.
 - **HAM is a good trade-off because it spreads risk among developers and the government.**
 - In this case, the government contributes 40% of the project cost, which reduces overall debt and improves project returns.

What are the Challenges in NH Construction?

- **Declining pace of execution:** NH construction is expected to slow from 34 km/day in FY24 to 31 km/day in FY25 (a 7-10% annual decline), primarily due to an influx of mid-level developers post-March 2020.
- **HAM model setbacks:** HAM projects face delays, with nearly one-third delayed by 4-6 months, and others awaiting 'appointed dates' for over a year.

- This resulted in cost over-run and thus impacting execution.

- **Regulatory and financial concerns:**

- Regulatory ambiguity and financing challenges exacerbate delays.
 - Recent RBI draft guidelines on project financing, which **increased equity requirements for HAM projects**, potentially resulted in reducing developer interest.
 - Also, **a large increase in provisioning requirements** during the construction phase – from 0.4 to 5% – is probably going to reduce developers' desire to bid in the medium run.
 - Therefore, **regulatory clarity and alternative funding avenues** are needed for smoother implementation.
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Q.1. What are the current road development plans in India?

The aim is to develop a national highway network of 200,000 km by 2025. The Task Force on National Infrastructure Pipeline (NIP) has highlighted a total capital investment of Rs 20.34 trillion for the sector by 2025.

Q.2. What was the Bharatmala pariyojana launched in India?

Bharatmala was launched by the Union Ministry of Road Transport and Highways in 2015 to ensure seamless freight and passenger movement. The project aims to fill the infrastructural gaps of the NH network and connect more regions with it.

Source: National highway works. Slippery road for hybrid annuity model

Source: <https://vajiramandravi.com/current-affairs/types-of-investment-models-and-challenges-in-nh-construction/>

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