

1. **Highlighting the issues faced in BOT and EPC models of infrastructure investment, explain how HAM can address these.**

Answer :

BOT (Build Operate Transfer) and EPC (Engineering Procurement Construction) have been the two frequently used PPP models for infrastructure development in India.

Under BOT, private players build, operate and maintain infrastructure for a specified period before transferring the asset back to government. Private players arrange finances while collecting toll revenue or annuity fee from the government. The government may or may not undertake the risk of any shortfall in toll revenue.

Issues with BOT

- Private players have to fully arrange for finance and NPA-riddled banks are reluctant to lend.
- In cases of non-fixed compensation structure, developers have to take on the entire risk of low passenger traffic.
- Delays and cost overrun due to environmental clearances and land acquisition worsens finances.

In EPC, the government finances the project and does land acquisition while the private player procures material and constructs infrastructure. EPC was the preferred mode for highway projects during 2013-15.

Issues with EPC

- Cost escalation and shrinking margins due to land acquisition issues, delays in approvals etc.
- Unrealistically low estimates and stringent payment terms in most contracts.
- Inherent limitation of financial resources available with the government.

HAM model:

HAM (Hybrid Annuity Model) tries to overcome these limitations by combining EPC (40%) and BOT Annuity (60%). Government releases 40% of total project cost, in five tranches that are linked to milestones. Balance 60% is arranged by developer – who usually invests ≤ 20-25% of project cost and raises the remaining amount as debt.

Benefits of HAM:

- It spreads the risk between developers and government. Also, the government provides viability-gap funding.
- Regulatory clearances risk, compensation risk, commercial risk and traffic risk are borne by government, thus helping cut overall debt and improving project returns.
- Annuity payment structure saves developers from traffic risk.
- Government gets an opportunity to flag off road projects by investing a portion of project cost.
- While it does take the traffic risk, it also earns better social returns by way of access and convenience to daily commuters.

PRACTICE QUESTIONS

Answer the following Questions

1. The measurement of the extent of formal sector and formal employment is yet an unsettled matter in our economy. Comment. Also, mention the steps which the government has taken to improve its extent.

(150 words)

2. The investment rate in India has gradually declined after a historic high in the mid 2000s. Examine the reasons behind this trend. Discuss the steps required to revive investment for a sustained growth.

(150 words)