APUIAML

Presentation on EPC & PPP Project Models

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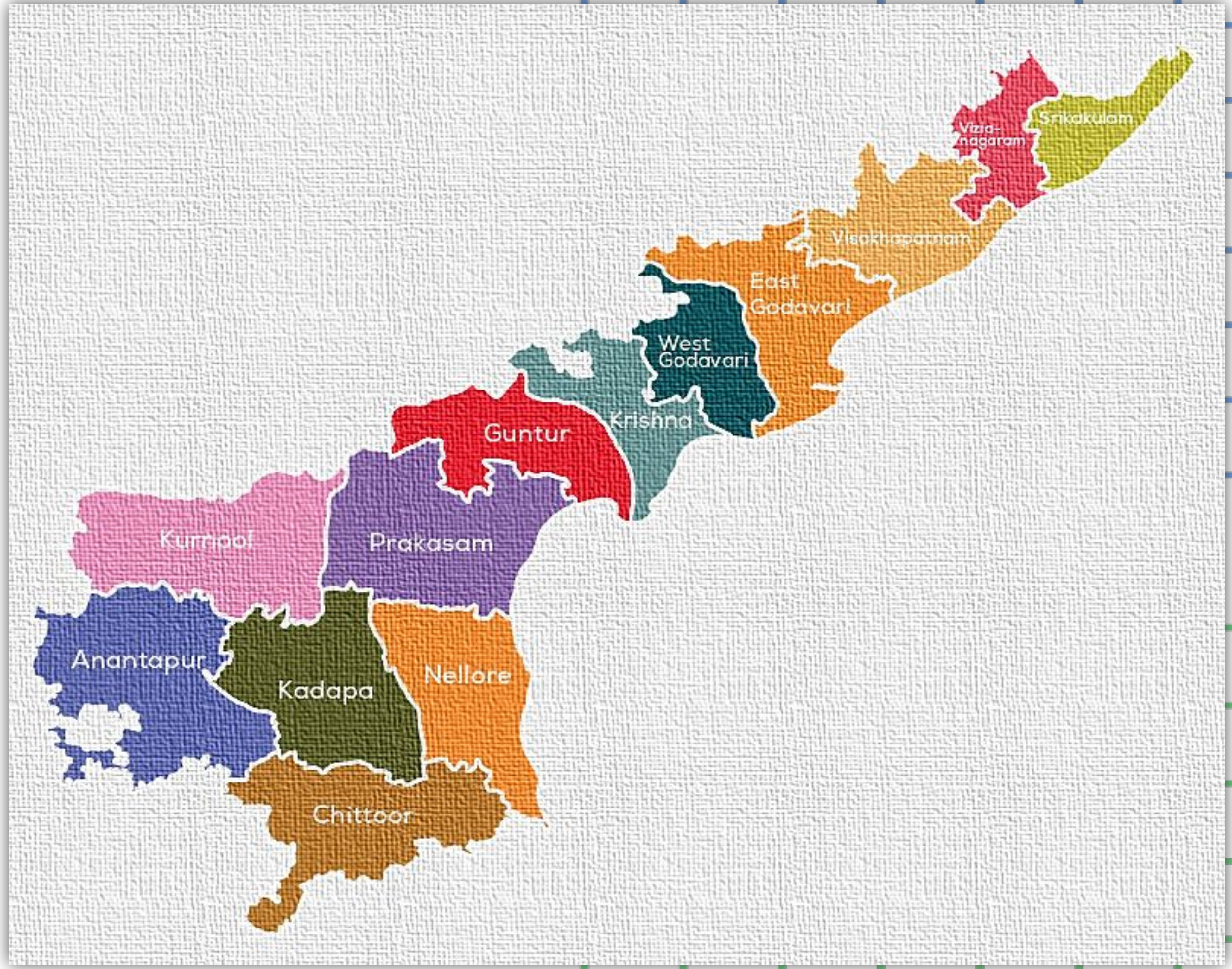


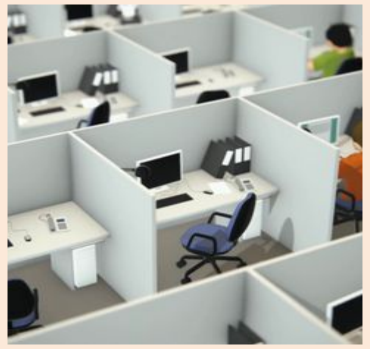
PORT LED DEVELOPMENT

AIRPORT LED DEVELOPMENT

STATE FIBERNET

ENERGY LED DEVELOPMENT

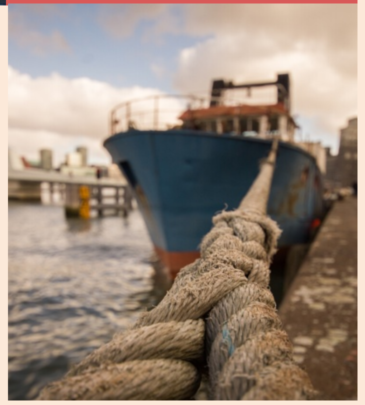
DIGITAL MISSION OF ANDHRA PRADESH



ANDHRA PRADESH TOWERS

CONCEPT CITIES & DRONE CITY

FISHING HARBOURS DEVELOPMENT



DR. YSR CITY SQUARE

INFRASTRUCTURE DEVELOPMENT

"A modern, widespread and well-organised infrastructure growth is one of the most essential components of a country's development"

INFRASTRUCTURE & INVESTMENT

- India aiming at a double-digit growth rate & infrastructural development would play a pivotal role in it where the govt. has been increasing investment in the infrastructural sector to achieve the optimal results.
- But, for achieving such results, proper allocation of such funds, steady and uninterrupted implementation of the infrastructural projects is a necessity.
- For smooth implementation of such plans, sometimes the government (or owner of an infrastructural project) tends to involve other private parties and enter into contracts with them.
- Such models are designed to facilitate speedy and cost-efficient completion of the projects.
- In this PPT, two of such models i.e. the PPP and EPC models have been analyzed and compared. Also, the PPT discusses the HAM model which has come into picture in recent times seemingly has many advantages over other traditional models.

EPC MODEL

Engineering, Procurement and Construction (EPC) contracts are the contracts used primarily in complex industrial and infrastructure projects like power plants, bridges, dams etc.

- EPC contracts involve a deal between the owner and a contractor, who is required to deliver certain design, construction, logistics, transport etc. related work to the Project financer.
- As it transfers the liability to the contractor and mitigates risks of the project, it is favorable for the Project financer.
- The project financier is absolved of a lot of complexities of engaging and interacting with a lot of people as it only has to appoint a single contractor and oversee the work and progress.
- They are reassuring for the Project financiers as the contractor is also obliged to deliver the required result within a particular time frame and at a pre-decided cost.
- But, as a result of these contracts, the contractor tends to establish a great deal of control over the Project designs, selections and decisions.
- Hence, the Owner must specify and mark clearly the required servic

PPP MODEL

Public-Private partnership (PPP) contracts

Public-Private partnership (PPP) contracts are agreements between public and private entities, in which the private entity is hired by the public body and is remunerated on a performance basis. They are typically long-term arrangements with most of them signed for a term of 20-30 years. The rationale behind this model is to combine the capabilities of the public and private sector to achieve optimal results.

Types of PPP Contracts

- BOT
- BOO
- BOOT
- BBO
- DB
- DBF
- DCMF
- Management Agreements
- O&M

Types of PPP Contracts

BOT

Build-Operate-Transfer is an arrangement in which the private entity undertakes construction work, operates it for a certain period of time and then it is taken back by the government. It is generally used for discrete assets rather than full networks. For e.g. Toll roads.

BOO

Build-Own-Operate is a model in which the ownership remains with the private party and it continues to operate that project. It is often used for water treatment or power plants.

BOOT

Build-Operate-Own-Transfer same as BOT but the operator will be the ‘Owner’ of the facility during the Concession period

BBO

Buy-Build-Operate. In this model the government sells the facility to the private entity. The private party renovates and operates the facility.

Types of PPP Contracts…Contd.

DB

Design-Build is a type of PPP model in which the private party has an additional responsibility of designing the framework of the project. It reduces time and complications and helps the public entity save money as only a single party is involved. It burdens the private party with an additional responsibility.

DBF

Design-Build-Finance means a project delivery method in which a Public Body enters into a single contract for design, construction, and full or partial private financing of a Public-Private Facility over a contractually defined term

DCMF

Design-Construct-Maintain-Finance is a framework in which the private party designs and constructs the project, and then is leased back the property. E.g. Prison projects.

MA

Management Agreement the public entity transfers the management of the asset, business, property etc. to the private party for a particular period.

O&M

Operations and Maintenance is an arrangement where the private party takes the responsibility of maintaining and operating the public property/project for the specific amount of time with certain obligations which are specified in the Operation and maintenance agreement.

EPC vs PPP

1. **Is there a difference between EPC and PPP?**
   - Both appear to be the same.
   - Both are arrangements between two parties in which one party is required to deliver to the other. So, is EPC a type of PPP only?
2. **Is there a difference between how the two models work.**
   - For better understanding let's take the example of a project involving construction of a dam by the government.
     - EPC Model – The government invites EPC bids for this project and grants the project to the entity with the cheapest bid (L1) & the project would be financed by the government.
     - PPP Model – The government would call for bids where private sector technology and innovation combine with public sector incentives to complete work on time & the project would be financed by the private party.

EPC vs PPP…Contd.

"Now, if there arises a situation in which there is a delay in the project (For e.g. Due to protest by local people)"

- **EPC Model –** The government would call for individual bids for engineering expertise, procurement of raw materials and the actual construction work. This would in turn increase the efficiency of the project as different parts of the project would not be interrelated and the private party would not have to deal with the political issues (in case any). The government would deal with the complications that arise.
- **PPP Model –** The private entity will have to solve the problem which would involve costs. Now it will have to pitch in a new bid to get compensated for the costs incurred. It will have to deal with the lethargic government machinery in order to get the new bid approved.

How EPC is better than PPP?

Which model is actually a better one?

Which model is actually a better one?

- While the PPP model may seem better in complex infrastructure projects, the EPC model has many advantages over it. Firstly, it is more viable for the private party.
- In the EPC model the whole capital is raised by issuance of government bonds and by securing road toll post-construction, contrary to the PPP model where the private party is responsible for raising finances.
- Government also takes the responsibility of acquiring clearances, permissions, preventing and mitigating other problems that may arise in course of the project.
- Hence, the private party can focus on planning and designing the project, procurement of raw materials and the construction work which reduces time required in the completion remarkably.

**As a matter of fact, the GoI recently adopted the EPC model over the PPP model for construction of national highways because private investors are reluctant to support this model. Also, there are no developments regarding many provisions which NHAI has proposed to improve financing conditions. Hence, NHAI now believes that projects can only be developed through the engineering, procurement and construction (EPC) mode. It is speculated that the EPC model would reduce time and cost overruns.*

Hybrid Annuity Model (HAM)

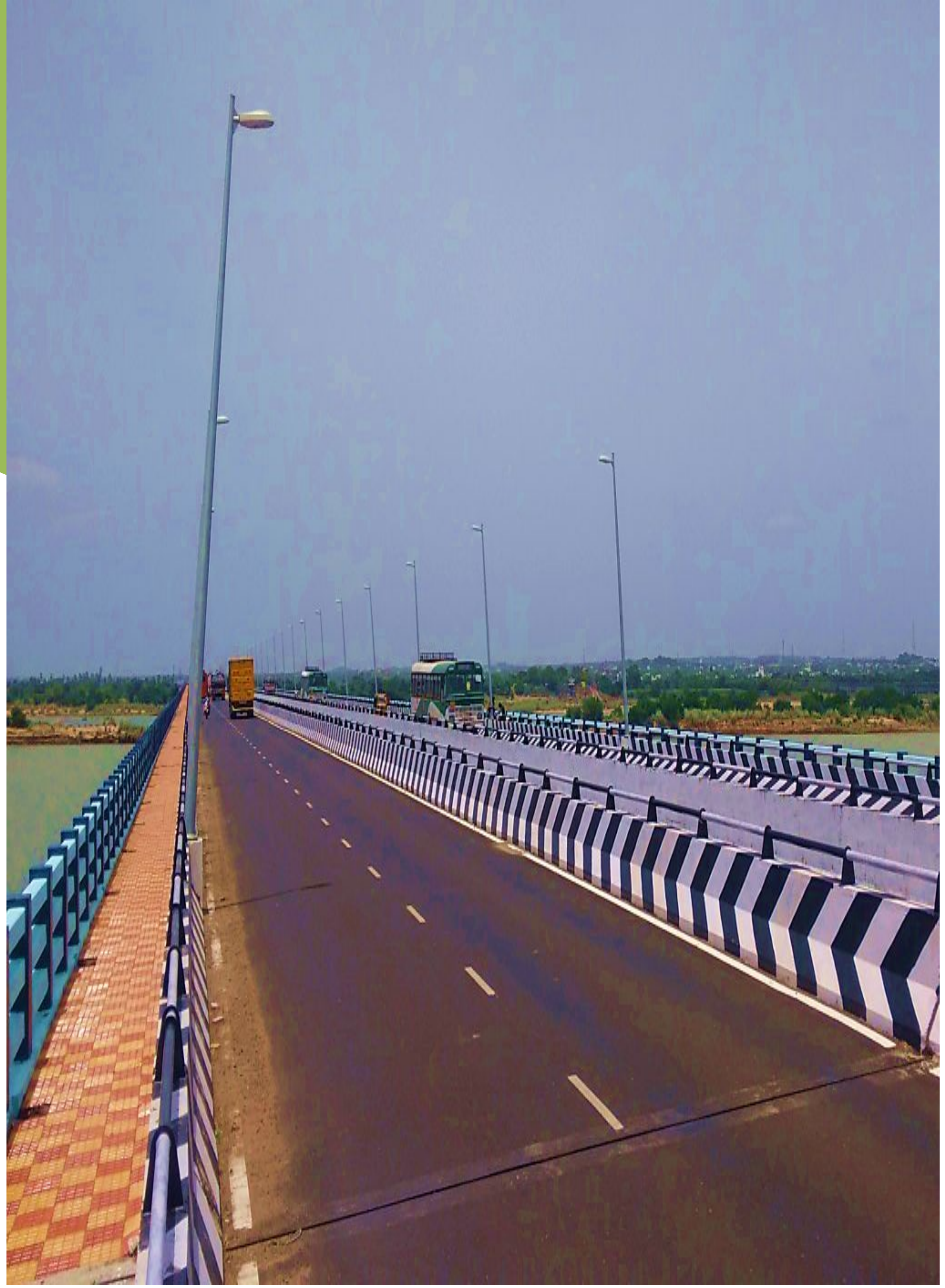
- While the PPP model puts the financial liability completely on the private entity, the EPC model puts tremendous financial burden on the government. Hence, both the models do not seem feasible. Hence, the **Hybrid Annuity model (HAM)** which is a mix of BOT Annuity and EPC has been adopted in recent times.

- **BOT Annuity Model:** In this model the private party builds the project and transfers it back to the government. The government starts paying the developer once the project is in commercial use.

- **EPC Model:** The government has to pay all the expenses incurred from the beginning of development of the project.

Hybrid Annuity Model (HAM)

- The **HAM is an amalgamation** and a version which **incorporates both the models** in it.
- Under this model the **government has to pay 40% of expenses** incurred **in the form of annual instalments (annuity)** in the construction stage, and **the developer needs to arrange the rest of the money at this stage**.
- **The rest of the payment is made after the completion** of the project on the basis of the value generated and assets created.
- **This payment can be made in the form of variable instalments annually.** The **private party doesn't have rights to collect toll** in this model.
- This model helps to **reduce the financial burden on both the parties** and **increase credibility** as both parties have some vested interest in the project.



Conclusion

While the EPC model transfers a lot of risk on the private party, the PPP model makes the government solely liable for the finances. Both the models, though having their own advantages, pose problems for one of the entities. In conclusion, we can say safely assume that the HAM is the best option available to us which does justice to both the parties.

“Agreements and contracts are never flawless. They always need to be improved and improvised according to the needs of the present. No model would work indefinitely and we need to adopt and evolve them constantly.”

THANK YOU!

AP URBAN