

# Output and Performance Based Road Contracts (OPRC)

## An Alternate PPP Model

Concept

Mumbai

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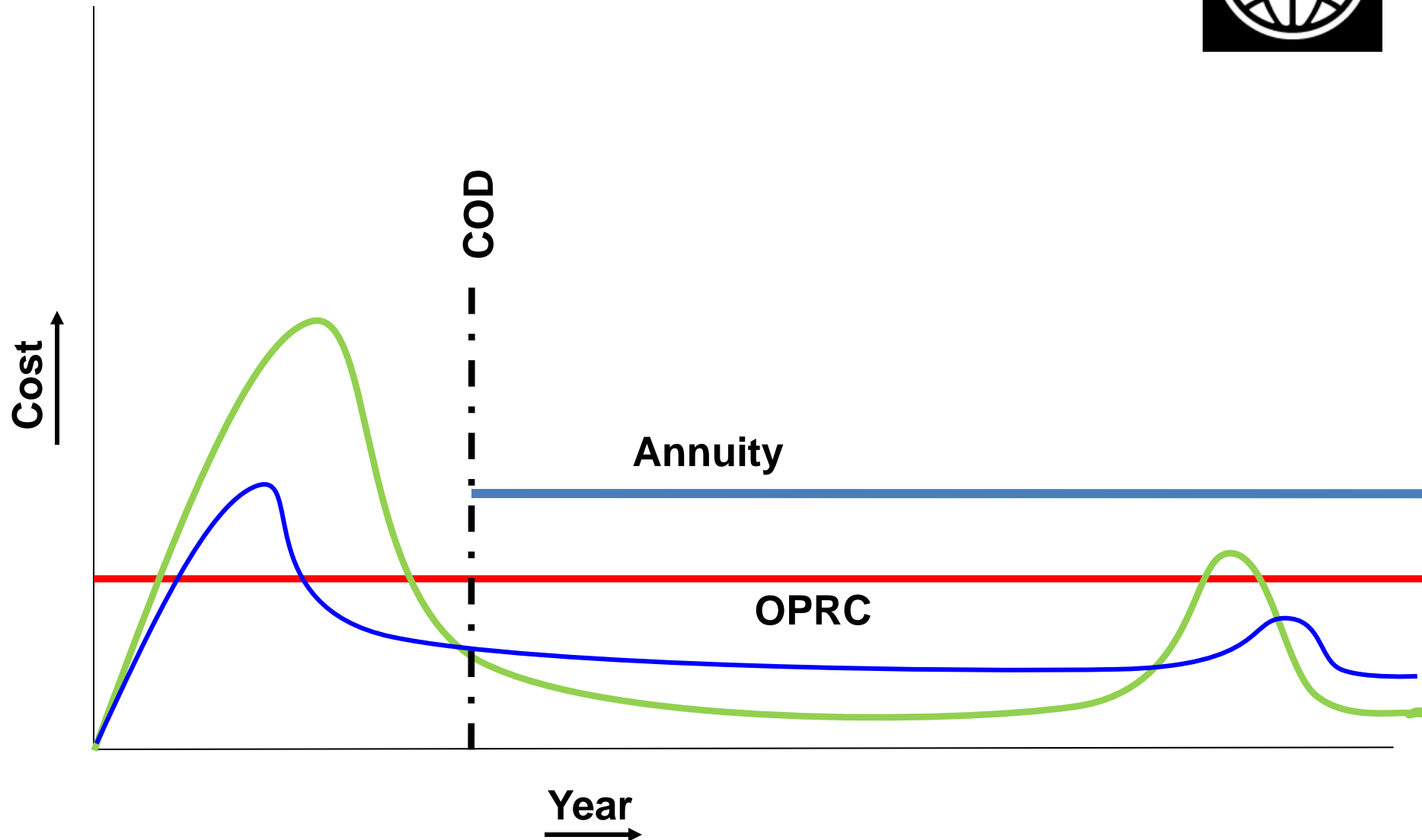
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# Various Contracting Models

- Item Rate (FIDIC)
- EPC/Design and Build
- Design Build Maintain Operate and Transfer
  - (Long Term based on Asset Management Principles) – PPP
  - Annuity, BOT-Toll, OPRC



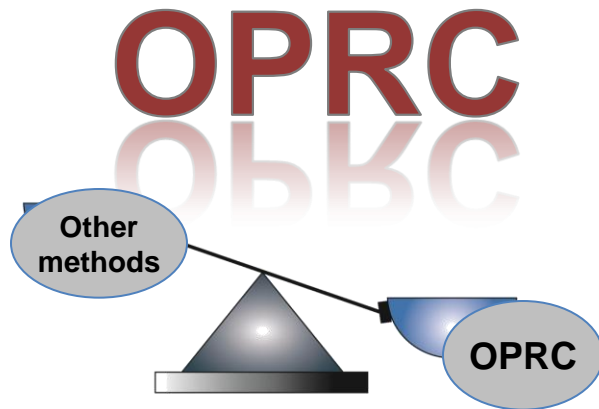
# Cash Flow and Payment Modalities....



# What is Output and Performance based Road Contract (OPRC) ?

- **Focus on output not input** – thus eliminate risks of client to pay on completion of works even if outcome is unfit for clients needs
- **Measure outputs based on actual performance** – what is achieved rather than what is done
- **Profit sharing, an incentive for PPP** – thus practical for PPP arrangement by aligning the motivation and performance of contractors with client's needs and goals
- **Contractors become stakeholders** by being directly rewarded for value they achieve for Client. Financial Model and Payment Schedule
- **Flexibility and cost effective overall interventions, specifically maintenance**

# What is Output and Performance based Road Contract (OPRC) ?



## Why OPRC ?

- ✓ New way -- Road Works Contracting
- ✓ New way -- Road Asset Management
- ✓ New way -- Public Private Partnership (PPP)

## BASIC CHARACTERISTICS:

- ✓ Increase efficiency and effectiveness of road asset management under single contract.
- ✓ Contracting Entity → A type of firm or business venture having the necessary contracting/technical, managerial and financial capacity.
- ✓ All interventions during the life span cycle of a project included in the contract. Financial Model and Payment Schedule provide for contractors continuous interest and incentives
- ✓ Work selection, design and delivery are all Contracting Entity's responsibility – Design Build Operate Maintain and Transfer contracting (DBOMT) – OPRC Contract.
- ✓ Higher risk sharing by private entities / contracting entity
- ✓ Efficiency leads to higher opportunities for Contracting Entity to increase profit margins as innovation encouraged and cost reduced
- ✓ Corridor as well as for Network

## OPRC: Four Type Of Quotations asked for



- Management and Maintenance Services  
(Rs/Month)
- Rehabilitation Works: Bring roads back to a standard they had before. (Rs/Km/Month)
- Improvement Works: Add new characteristics to the road, in response to new traffic, safety, or other considerations. (Rs/Km/Month)
- Emergency Works: Repair the road after damage from unforeseeable events. (BOQ)

# Bid Evaluation for OPRC contracts

Activity	Bid Evaluation basis
Management & Routine Maintenance:	Network km $\times$ <u>Lumpsum per km/month</u> $\times$ No. of months
Rehabilitation Works:	<u>Output Unit prices</u> $\times$ quantities (e.g. strengthening/Km)
Improvement Works:	<u>Output Unit prices</u> $\times$ quantities (e.g. widening to four lane/Km)
Emergency Works:	Hypothetical Input Quantities $\times$ input <u>unit prices</u>
<b>TOTAL BID PRICE:</b>	<b>SUM OF THE ABOVE</b> <b>(Net present value)</b>

# Basics

- Engineering Investigations/Data Collection (light)
- Traffic Model ( growth, pattern of changes, description of the model and its major features),
- Concept Design and Specifications Provided
- Service level defined and linked to monthly payments (reductions defined if not met)
- Contract period – ideally 10-15 year



# Basics

- Pavement Deterioration Model developed and Required Residual Life of pavement defined for taking over.
- Risk Framework prepared and included in the contract.
- Best Value for Money – Financial Model Developed (Payment Schedule, specified in the contract)
- Bid requires a 'Contracting Entity' or Developer – Contractor + Consultant as this is more of a management contract.

# Payment Mechanism

- Contracting Entity prepares a compliance report + Bill
- Employer through a monitoring consultants check this compliance report
- Payment reductions well defined if compliance not achieved.
- Continuous non-compliance triggers actions (could be termination)

# Project Guarantees- overview

The Concessionaire guarantees structure will be required during the entire construction period because **the Government must protect itself against Concessionaire's potential breach at all times during the project cycle**

## **Tender Bond**

- To ensure Contracting Entity's commitment until financial closure.
- Small amount

## **Financial Closure Bond**

- To ensure Contracting Entity's will reach financial closure.
- Significant amount

## **Construction Performance Bond**

- Usual Guarantee.
- This guarantee will be returned after full completion of construction and completion certificate issued.

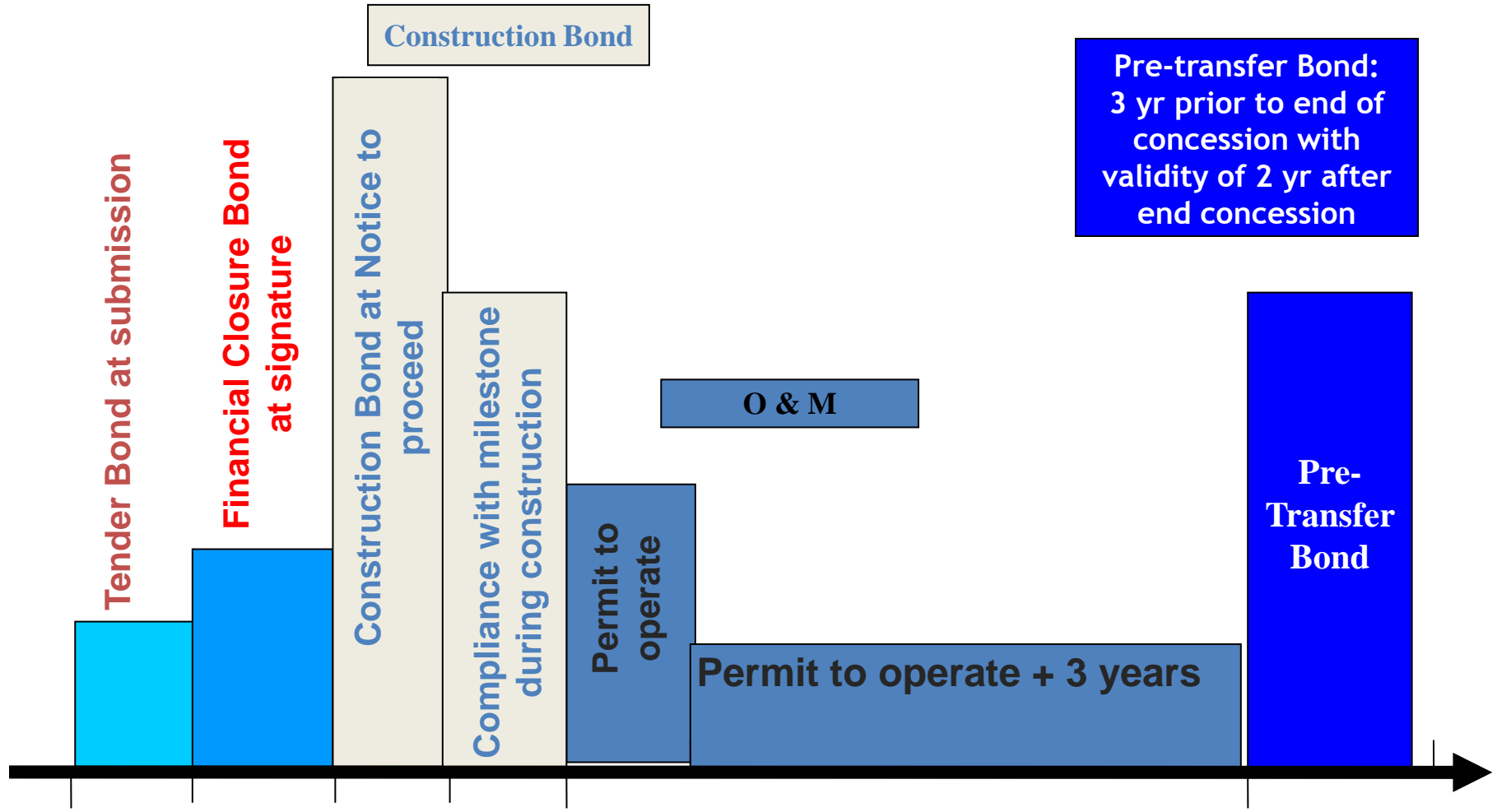
## **Operation and Maintenance Bond**

- Provided once it is granted a license to operate the asset.
- The amount shall be derived from operating and maintenance costs and assessment of the potential damage resulting from neglecting maintenance.

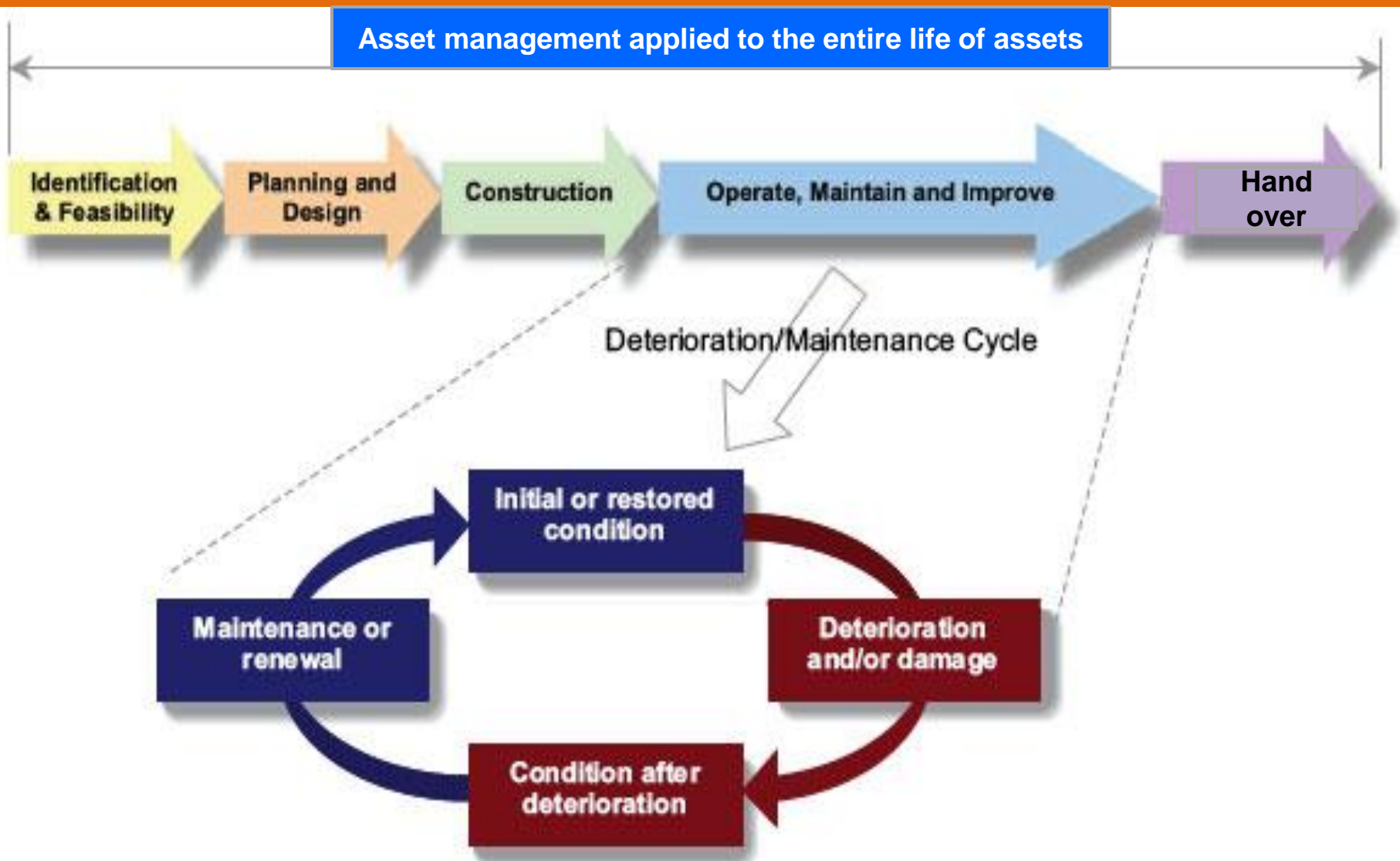
## **Pre – Transfer Bond**

- Guarantee to secure the transfer of the road according to the level of service required.
- Validity of this bond should be enforced until 1 or 2 years after the end of the concession period.

# Typical Guarantee Structure for OPRC Projects



# Asset Management -- Lifespan of Road Asset



**Let us try this out .....**

**Ready to do some pilots OPRC ?**

