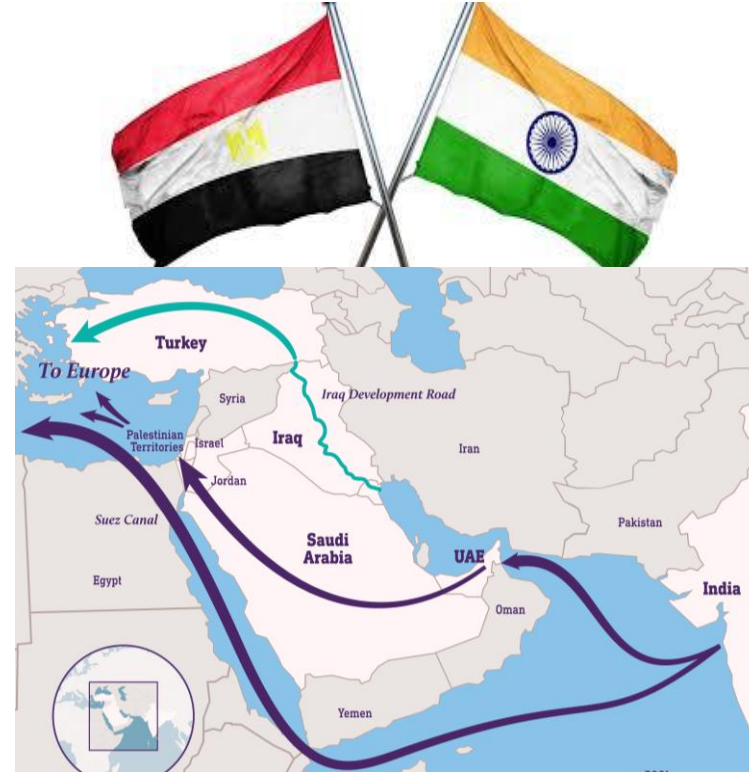


Resource Person:



Dr. Kishore Nuthalapati
CFO, BEKEM Infra Projects Pvt. Ltd; &
Honorary Fellow, MCRHRDIT,
Govt of Telangana



International Public Private Partnership (PPP) Projects

for

Commercial Diplomats, Government of Egypt

11.30 am to 1.00 pm; 27th August 2024
Conference Hall, MCRHRDIT, Hyderabad

CFO LEDGER

Fresh takes, in-depth analysis and opinions from our esteemed panel of industry leaders



Kishore NK - Kishore NK, Director BEKEM Infra Projects Pvt. Ltd.

Interest rate & Inflation challenges

Markets are prepared to see RBI rising its policy rates in its monetary policy committee meeting schedule between 6 th to 8 th June 2022. But the markets are eager about how much would the increase be.

Search Funds: A new venture-entrepreneurship

Growth funding is critical to sustain and grow a business even after it breaks even and gains brand image. For most of the products, growth funding is difficult. Should a potential business perish for want of growth funding? Not necessarily. Innovations in entrepreneurship have a solution in the name of Search Funds. Search Funds bypass

10 days ago

The Ascent & Assent of Cryptocurrencies

The launch of cryptocurrency exchange platform by TCS and association of other IT majors such as Infosys and Wipro with block chain technology increased attention towards block chain technology and also cryptocurrencies. It may be funny yet interesting that the Reserve Bank of Kailasa, the central bank of the new nation Kailasa

236 days ago

Have masala bonds become less spicy?

Pecking order imbues fund mobilisation. Companies prefer exhausting their debt sources before examining equity funds. However, the debt equity limit imposed by



- Views are for discussion with no obligation on Speaker, host or sponsors or organizations the speaker is associated with.
- The details are compiled from the publicly available data and are not recommendations or any advices.



Contribution of Dr. Kishore Nuthalapati in TV media with analysis on Economy & Financial Markets



. with knowledge

Projects are dreams

“Every great building once begun as a building plan.

That means, sitting in that building plan on the table is a mighty structure not yet seen.

It is the same with dreams.”

— **Israelmore Ayivor, Shaping the dream**

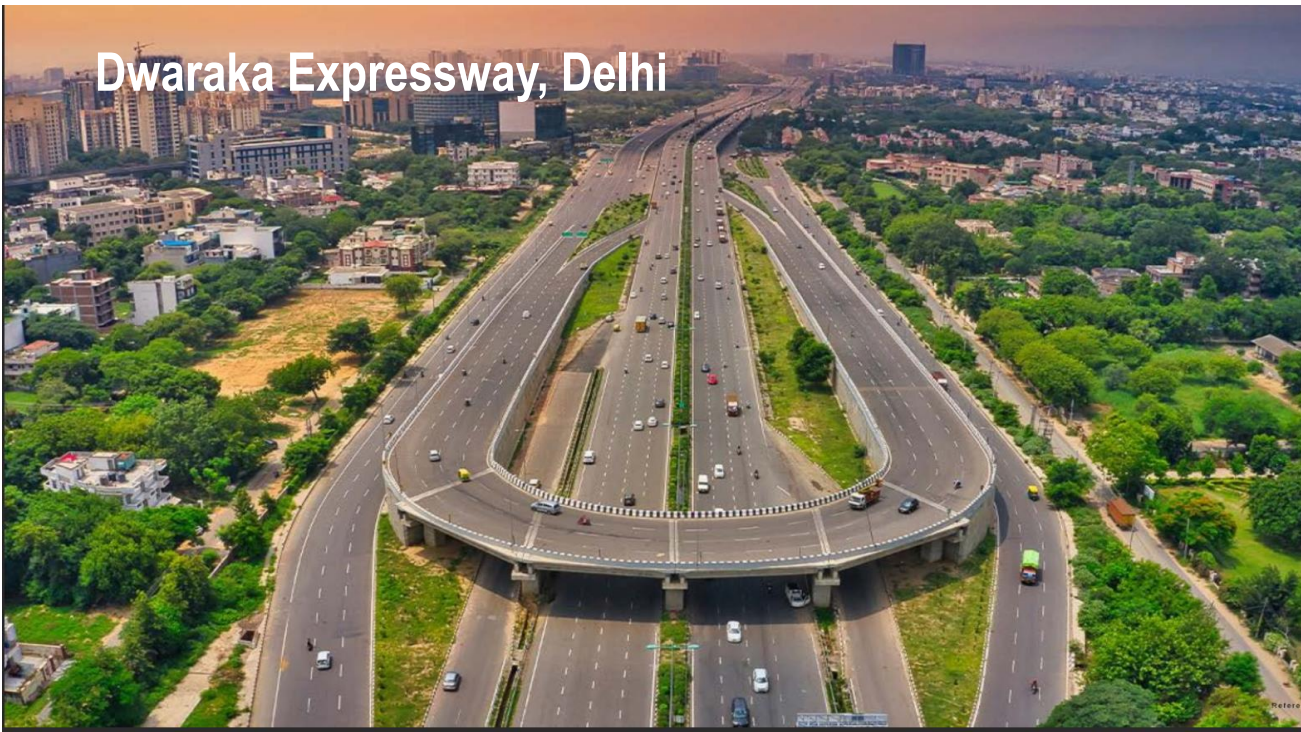


Select Projects and Outlay

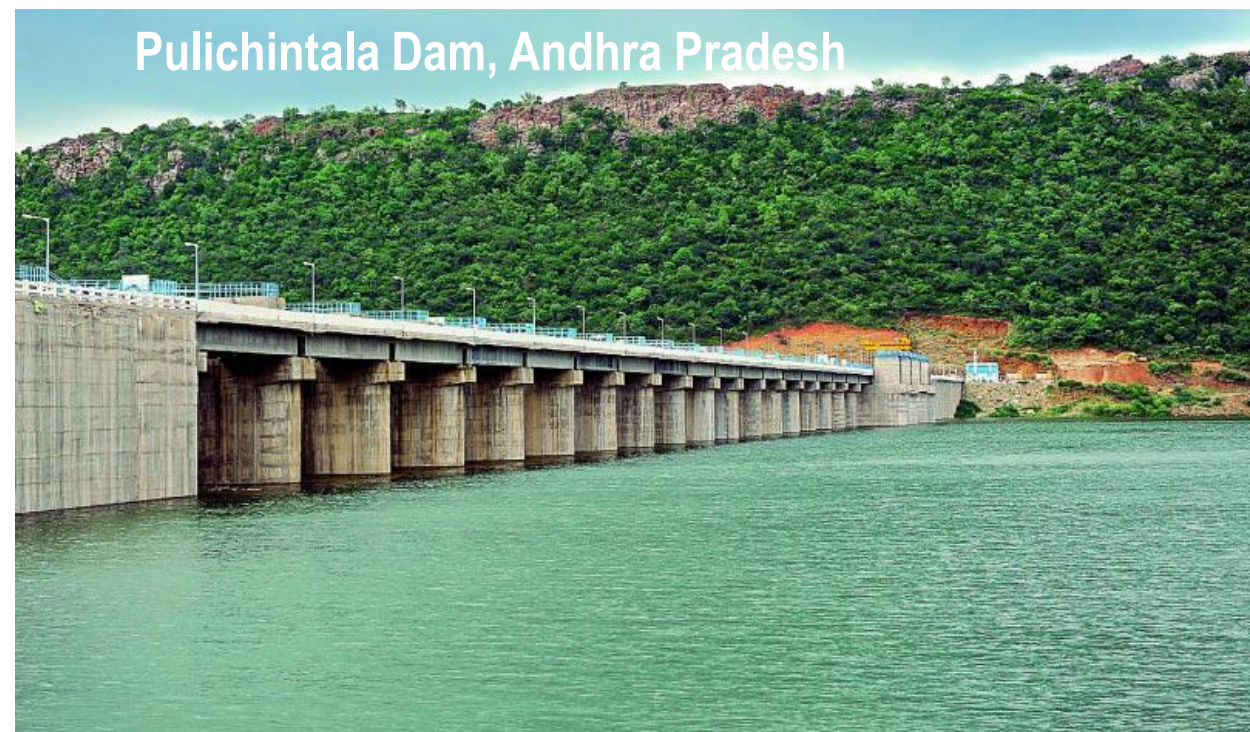
The International Space Station (ISS), Space : \$150 billion, started in 1998, completed in 2011

- South-North Water Transfer Project, China : \$79 billion, started in 2002, (few parts completed in 2013)
- California High-Speed Rail, USA : \$77 billion, started in 2008, completion estimated for 2033.
- London Crossrail Project, UK : \$24 billion, started in 2009, completed in 2022.
- Beijing Daxing International Airport, China : \$13 billion, started in 2014, completed in 2019.
- Hong Kong-Zhuhai-Macau Bridge, China : \$15 billion, started in 2009, completed in 2018.
- Gwadar Port, Pakistan : \$10 billion, started in 2002, completed in 2022.
- Al Maktoum International Airport, UAE : \$85 billion, started in 2010, completion estimated for 2027.
- New Suez Canal, Egypt : \$8.4 billion, started in 2014, completed in 2015.
- Itaipu Dam, Brazil and Paraguay : \$20 billion, started in 1975, completed in 1984.
- Jubail II Industrial Project, Saudi Arabia : \$11 billion, started in 2006, completed in 2016.

Dwaraka Expressway, Delhi



Pulichintala Dam, Andhra Pradesh



Hyderabad Airport



Hyderabad Metro Rail



Water Treatment Plant



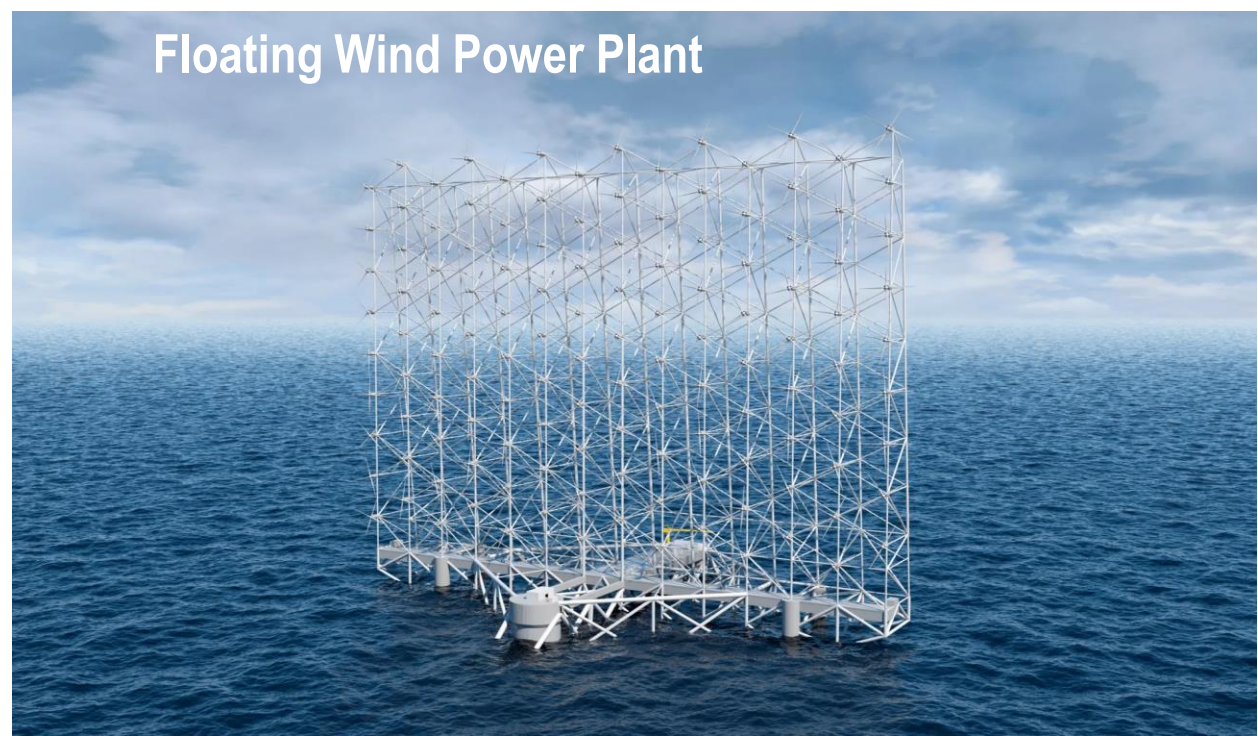
Mundra Seaport



Thermal Power Plant



Floating Wind Power Plant



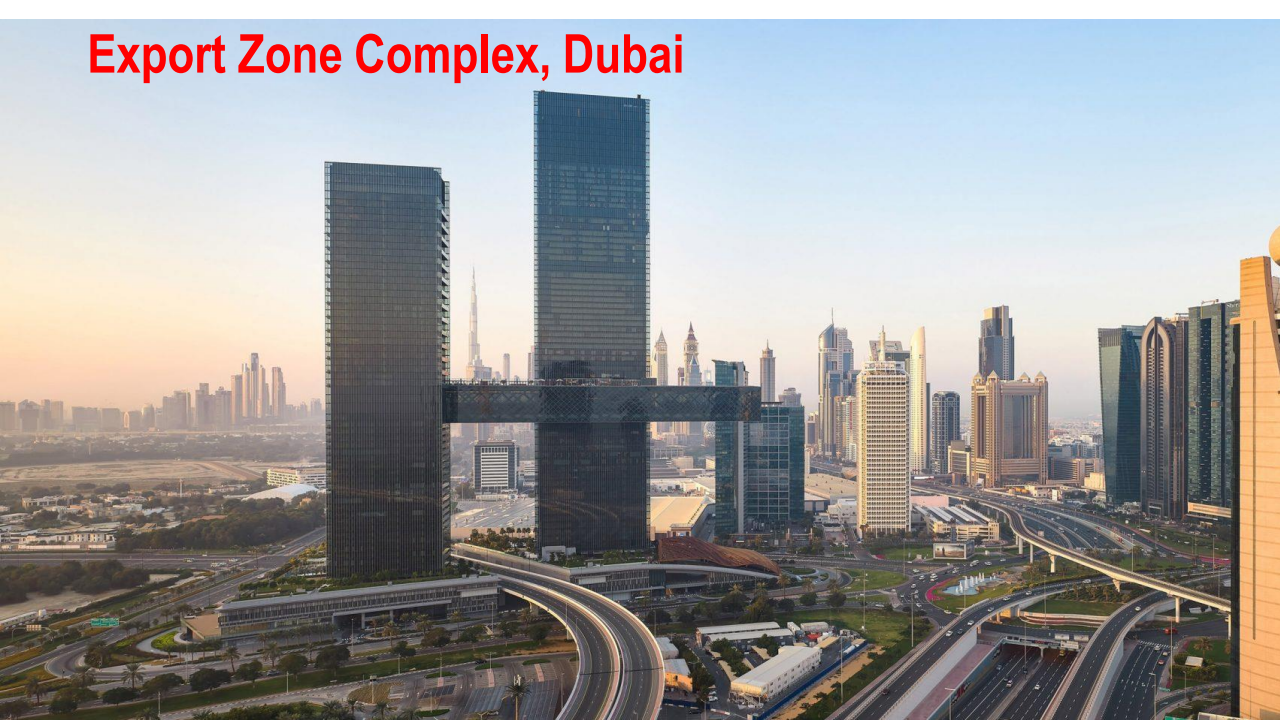
Industrial Park



Oil & Refinery Project



Export Zone Complex, Dubai



Panamax Ship



Surat Diamond Bourse



Office Buildings, USA



Sports Stadium



Trivandrum Residential Project



Central Jail, India



Sub-Sea Oil Pipeline Project



Multi Level Car Parking Project



Bangalore Film City



World's largest Radio Telescope FAST, China



Lusail City, Qatar



PRT, Lagos, Nigeria



NEOM City, Saudi Arabia



Shanghai Tower, Chennai



National Highway, China



Reliance Model Economic Township, Haryana



Dubai Squares



Chabahar Port, Iran



Chamonix Ropeway, France



Sea link Road, China



Dholera Solar Park, Gujarat



International Space Station

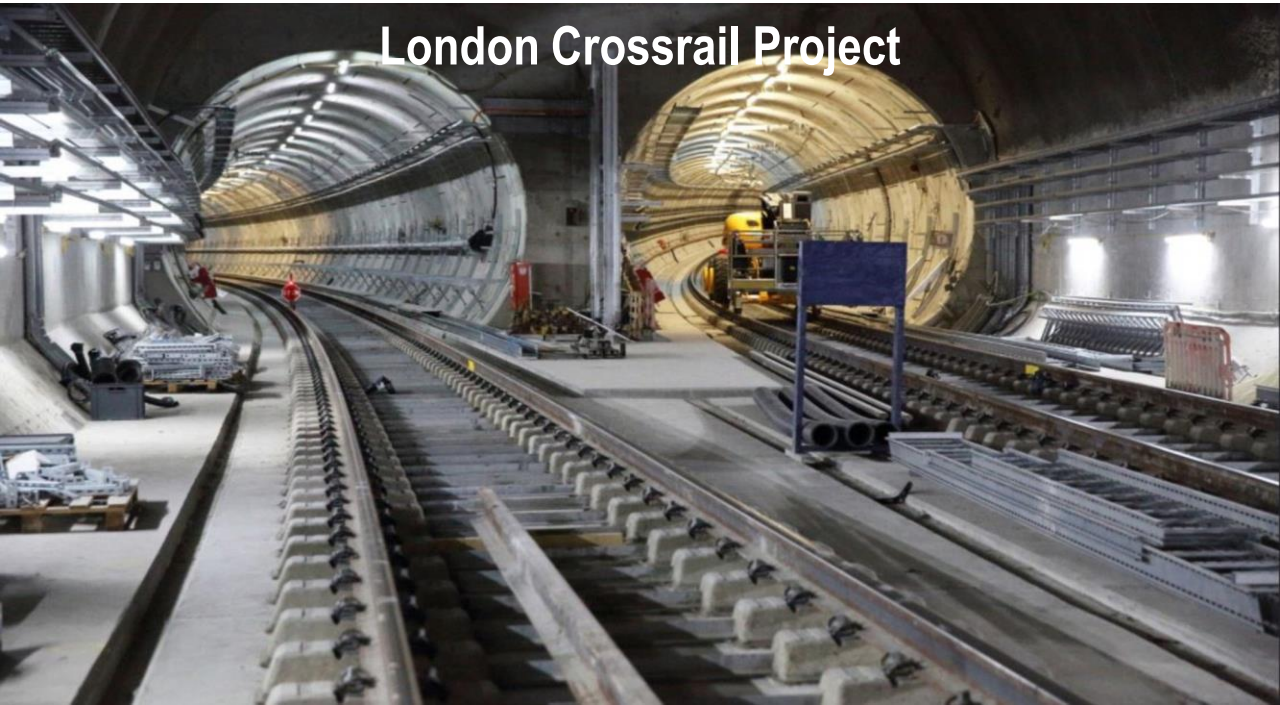


South to North Water Transfer Project, China



China.org.cn

London Crossrail Project

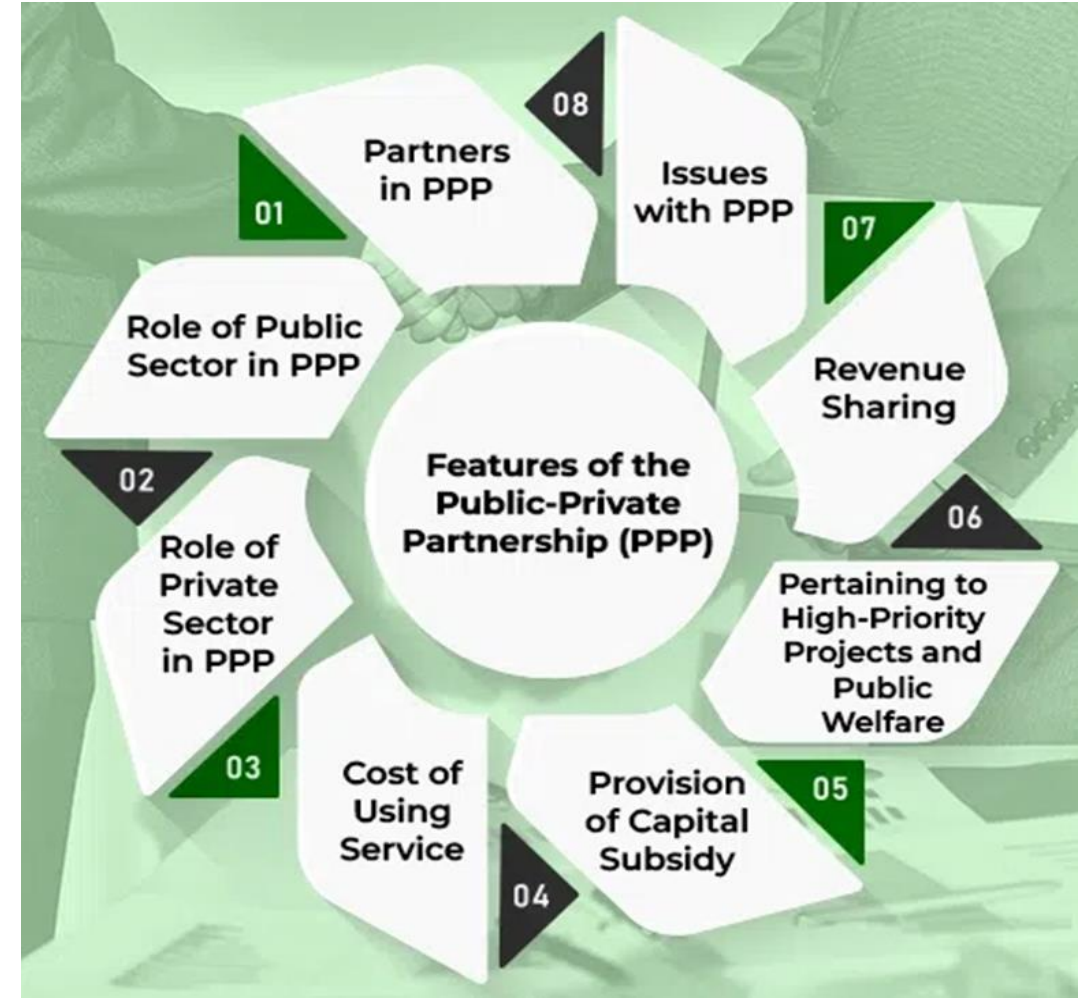


Dubai Airport Freezone



Why PPP?

- Greater regulatory convenience
- Enhanced capacities without public money
- Tapping into private money and efficiency
- Greater transparency
- Competitive bidding process
- Lower financing costs
- Better risk containment and sharing
- Directed benefits through subsidies
- Better adherence to quality standards



PPP Projects: Roles of Private & Public

Principal Role of Private:

- To mobilize additional capital;
- To provide alternative management and implementation skills;
- To provide value added services to the consumers and the public at large;
- To provide better identification of needs and optimal use of resources;
- To transfer the asset after concession period as per concession agreement.

Principal Role of Public:

- To identify the need of the project;
- To effectively structure the project considering interest of involved parties;
- To facilitate envisaged project with land acquisition, utility shifting etc.;
- To monitor project based KPIs during the construction as well as operating stage;
- To take over the asset at the end of the concession period

Variants of PPP – 1/2

Variant	Description of PPP Variant	Suitable Sectors / Projects
BOOT	Build Own Operate Transfer	Roads, power, water, telecom, etc
BOT	Build Operate Transfer	Transport, Utilities, Tourism, Telecom, etc
BTO	Build Transfer Operate	Mining, Transport, Utilities, Buildings, etc
DBF	Design Build Finance	Health Care, Stadiums, etc
DBFM	Design Build Finance Maintain	Tourism, Telecom, Sports, etc
DBFO	Design Build Finance Operate	Airports, Seaports, etc
DBFOM	Design Build Finance Operate Maintain	Education, Public Buildings, etc
DBFOO	Design Build Finance Own & Operate	Power Plants, Telecom, etc
DBFORM	Design Build Finance Operate Rehabilitate Maintain	Education, Utilities, etc
DBO	Design Build Operate	Railway Infra, Solid Waste Management, etc
DBOM	Design Build Operate Maintain	Recreation Facilities, Tourism Infra, etc
LROT	Lease Renovate Operate Transfer	Brownfield Projects

Variants of PPP – 2/2

Variant	Description of PPP Variant	Suitable Sectors / Projects
ROT	Rehabilitate Operate Transfer	Historical Buildings, etc
ROOT	Rehabilitate Own Operate Transfer	Technology Innovation Centres, etc
BROT	Build Rehabilitate Operate Transfer	Schools, Highways, etc
BOLT	Build Operate Lease Transfer	Theme Parks, etc
LDO	Lease Develop Operate	Tech Hubs, Industrial Parks, etc
BLT	Build Lease Transfer	Medical Centres, Industrial Parks, etc
DCMF	Design Construct Manage Finance	Industrial Facilities, Renewable Power, etc
OMT	Operate Maintain Transfer	Waste Water, Water Facilities, etc
OMDA	Operation, Maintenance, Devpt Agmt	Airport, Railway Stations, etc
BOO	Build Own Operate	Oil & Gas, Telecom, etc
BOOR	Build Own Operate Remove	Mining, Oil & Gas, etc
BOOST	Build Own Operate Share Transfer	Health Care, Stadium, Tourism, etc
TOT	Toll Operate Transfer	Roads, Bridges, etc

Project, Project Structure, & Project Finance

Project

A project is a temporary endeavour undertaken to create a unique and / or a permanent asset or fulfil a contractual service.

And..., a project is:

- performed by people,
- constrained by limited resources,
- planned, controlled, and executed
- within the time & cost targets

Project Structure

Project structure decides constitution, risks, and input & output resources for finance, & operations.

The **structure depends on the nature** of the project such as type, kind, complexity, parties, value, etc.

It explains the robustness of project's implementation & operations.

The design of the project structure is dependent on regulatory, contractual or operational requirements.

Project Finance

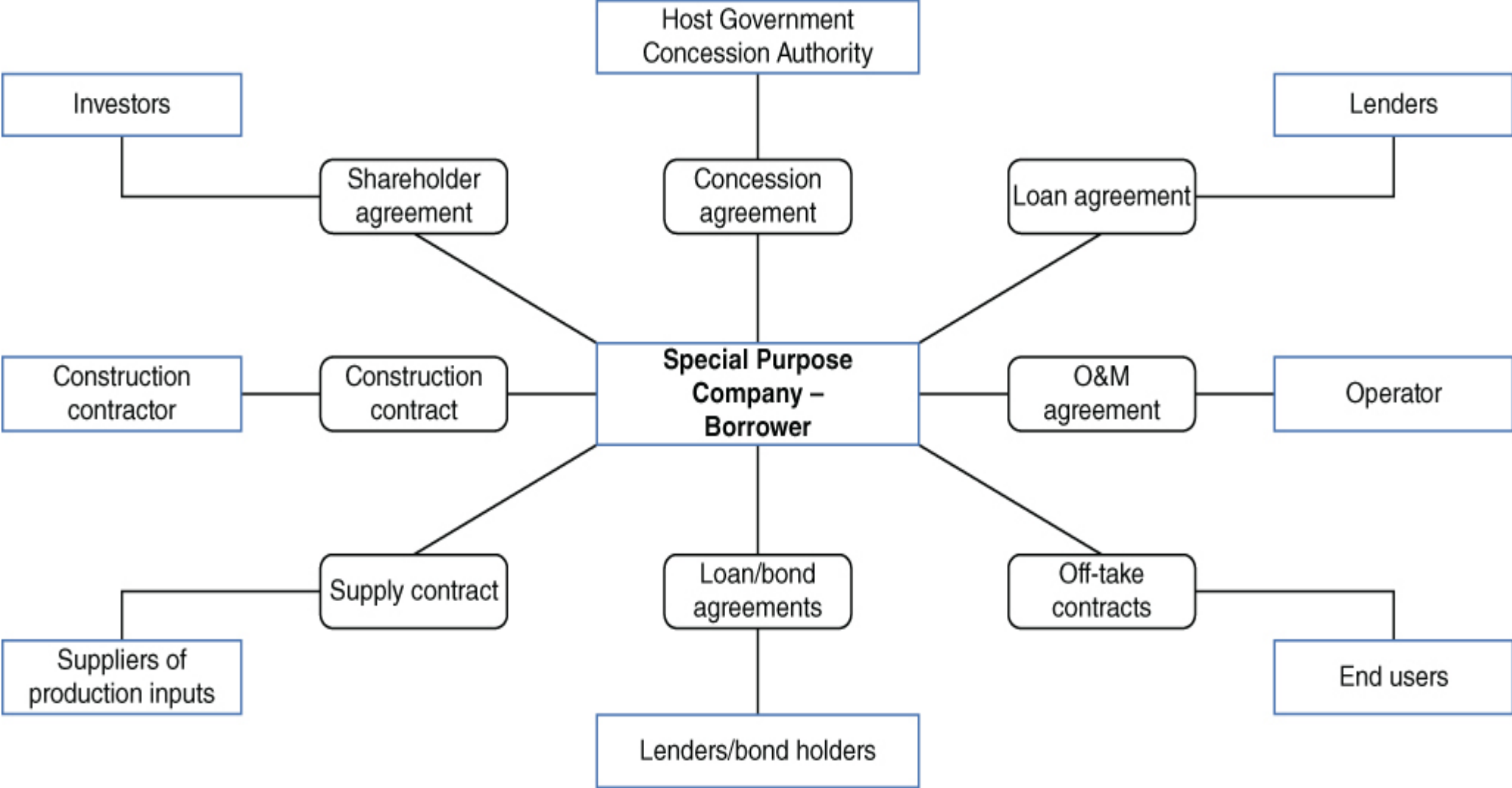
It is the method of funding.

Lender looks primarily to the revenues generated from the underlying project, both as the **source of repayment and as a security for the loan.**

The form and framework depends on the nature of the project and the project structure.

The cost of project finance is one of the key deciding factors of the project's financial viability.

Project Structure



Nature of Projects & Dynamics

Nature of Projects & Dynamics			
Particulars	Brownfield	Yellowfield	Greenfield
Nature	Expansion of existing projects.	Revival or Reuse of previous projects.	New projects. Land is undeveloped.
Project Complexity	Usually low	Medium	Usually high
Development Risk	Less	Medium	Usually high
Construction Duration	Less	More	Usually long
Ecosystem	Well exists	Marginally exists	Need to be created
Regulatory interface	Relatively less	Medium	High
Funding	Equity, & Sales	Equity, Investments	Equity, Investments
Financing	Short / Medium	Medium term debt	Long term debt

Project Phases & Dynamics

Phases of Projects & Dynamics			
Particulars	Development	Construction	Operation & Ownership
Scope of activity	Bidding, land purchase, approvals, Financial Close, tender EPC, O&M, etc works	Construction and commissioning with trial runs, where applicable.	Operations after Commencement of Operations Date
Risk	Very high	Medium, but varies	Very low
Duration	Medium, but varies	Medium, but varies	Long
Regulatory interface	Very high	Medium, but varies	Very low
Cash inflows	Equity	Equity, and debt	Revenue from operations
Cash outflows	Preliminary works	Construction & interest	Interest and dividend
Returns	Very high	Medium, but varies	Lower
Equity transfers	Usually no	Usually no	Depends
Refinancing Debt	Usually no	Usually no	Usually yes

Project Finance: Phase-wise risks



Development Phase

- Approvals & permissions
- Political
- Engineering (ports / tunnels)
- Technology
- Financial viability
- Land issues
- Financial close (dry to wet)
- Tendering EPC, O&M, etc
- **Back levered equity**

Construction Phase

- Approvals & permissions
- Political
- Engineering & Technology
- Delay & Defects
- Timely Funds availability
- Contractual issues

O&M Phase

- Operations risks
- Technology issues
- Contractual issues
- **Credit risk**

Project Finance: Measures to Mitigate

Development Phase

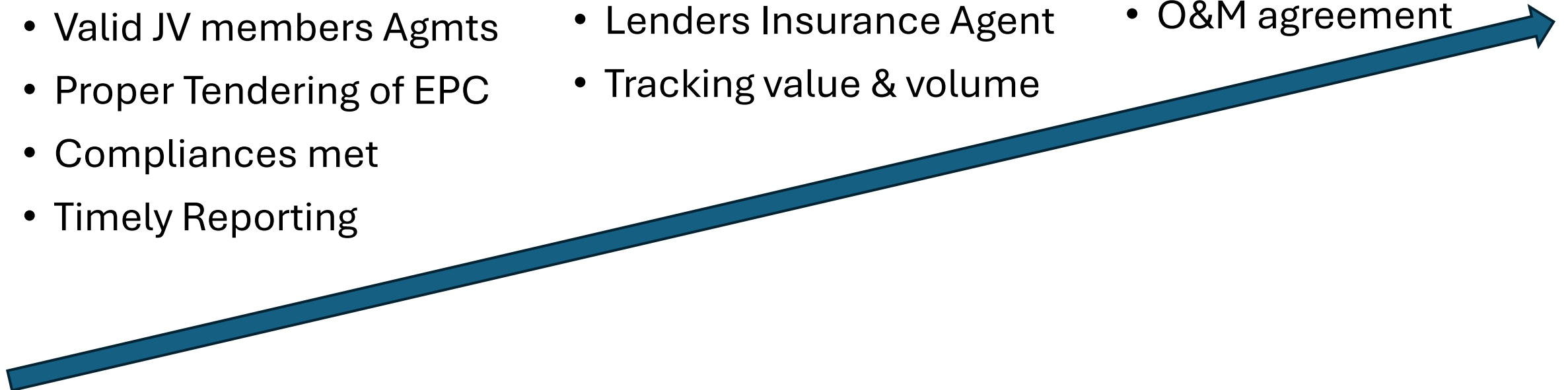
- All approvals in place
- Orderly Revenue projections
- Valid Concession Agmt
- Valid JV members Agmts
- Proper Tendering of EPC
- Compliances met
- Timely Reporting

Construction Phase

- All approvals in place
- Timely funds
- Lenders Engineer
- Lenders Insurance Agent
- Tracking value & volume

O&M Phase

- Insurance
- Warranties
- AMC
- O&M agreement





**Thanks,
Great time
ahead for you!**