Municipal Solid Waste Management
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Lecture - 42
Finance and PPP in MSWM Projects

Hello students, so, we are on module 14, finance and PPP in solid waste management projects. So, in the previous lecture I talked about financing and also gave the importance for the PPP projects under solid waste management system public private partnership. So, today I thought before giving some examples like some success story or failures, stories about PPP projects in India in solid waste management system, I thought first let you people know about the PPP first, what exactly meaning and what are the different ways the collaboration or participation between public means a local body and the one private company.

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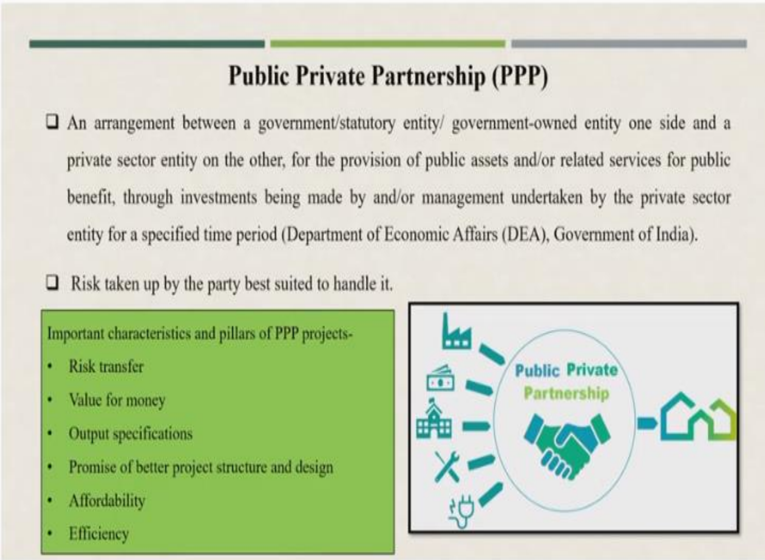

So, when you say PPP is normally is an arrangement between the government or government-owned entity in one side and the other side is a private sector and that is for the provision of public assets or related services for public benefit and through the investment being made by the both way from the local body or is in private body and specific for the specific time period and what are the risks normally our most important pillars.

We can say, based on that, this collaboration of participation between the local body and private company is based on the risk transfer, value for money, output specifications and promise of better project structures and design and also the efficiency these are the basic pillars, when you talk about the PPP projects. So, it is not only for the solid waste management also, but for any infrastructure project where this collaboration between local body and private company so, these will be the most important parameters.

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Under this was, I think is a world news, but there is a attention now, for collaboration between the local body and private company or PPP projects.

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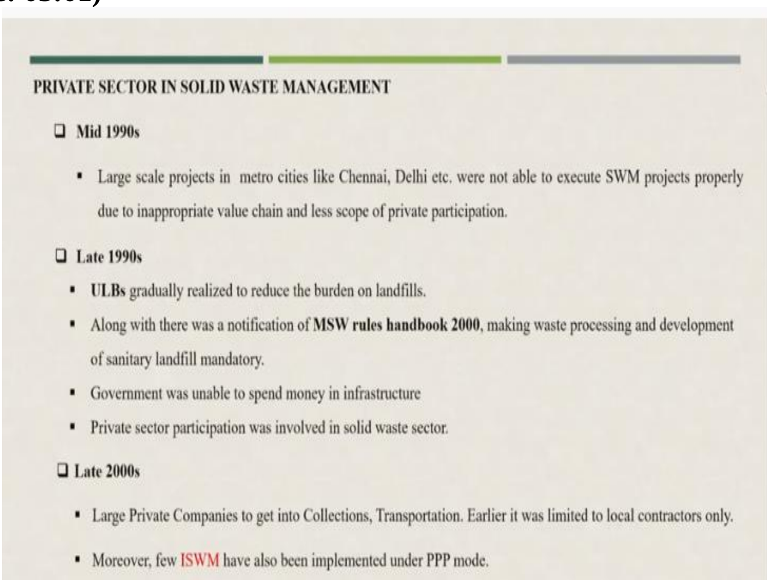

So, when you say some the history about PPP projects in India like specially for the solid waste management, mid 1990s, like large scale project in the metro city like Chennai, Delhi were not able to execute MSW project properly due to inappropriate value chain and less scope of private participation. So, that was found in the mid 1990 and late 1990 was thought about this rule also came MSW rule 2000 under had been I think in these rule actually, the specially mentioned about processing and treatment of solid waste and proper disposal like sanitary landfill.

So, because of that, it was thought about there will be there should be a participation by the private company for proper infrastructure and proper processing and treatment facilities in the metro city spatially and later 2000 the these private company they started the participation and mostly for the collection, transportation and earlier actually that was a local contractor used to be there for the collection, segregation or for transportation and but still very few implemented under the PPP mode.

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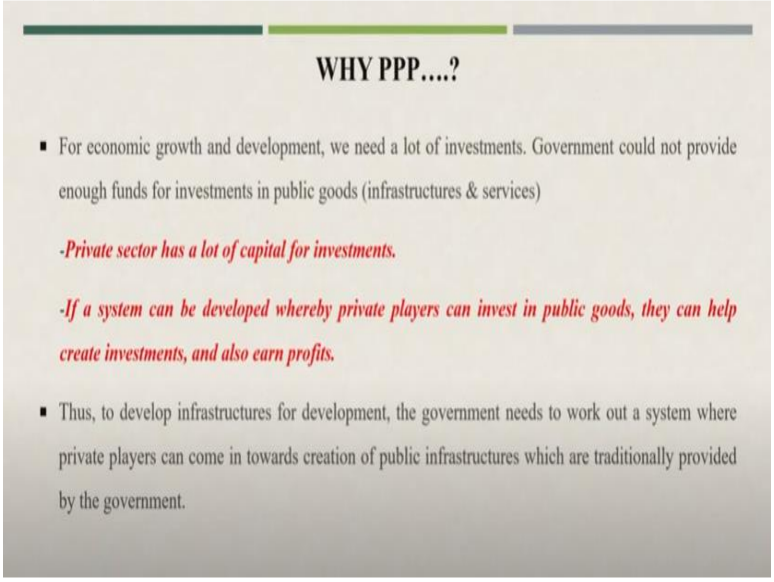

Now, why PPP actually? First need to be understand like for economy growth and development, we need a lot of investment that is the important one and government could not provide the inner fund for development or do know a lot of infrastructures required specially for the developing countries like India and it was thought about that private sector has a lot of capital for investment and not only the investment, but also with the they will have the proper a lot of benefits will come up from them.

Like the development infrastructure for infrastructure for development, the government needs to work away system where private players can come in towards creation of public infrastructure, which are traditionally provided by the government. So, and also if suppose, the local body installed one composting plants or one recycling plant is very difficult to run our operation by the local authority and even though efficiencies also from private companies war was far better, that is why the it was thought about to have collaboration between local authority with the private companies.

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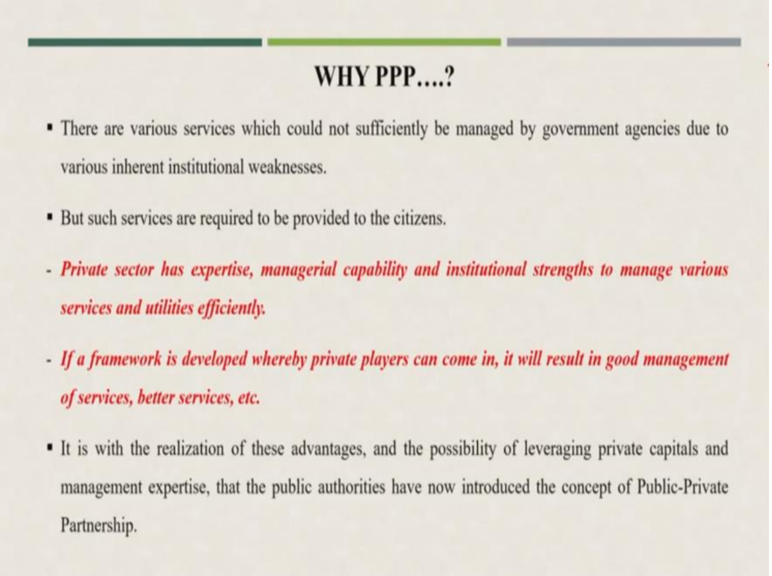

So, there are various services which could not sufficiently by managed by the government agency, because there are lot of weakness, institutional weakness but I think these are the servicer very is very important for the citizens and the private sector has expertise, management capacity, capabilities institutional strengths to manage the various services and also the utilities efficiently that was the one very important factor and if a framework is developed wherever private players can come in, it will result a good management of service better services. And also the, it was finalized that the lot of advantages from the private company after the collaboration.

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If you some facts here, like India now, we normally spending 6% of his GDP for the infrastructure and China is 20%, but currently, we are seeing that a lot of infrastructures are coming and also India is looking for 15 to 20% investment the infrastructure of their particular GDP. So, this was one nine, I found in the budget speech that was in the one of the finance minister, the importance of infrastructure for rapid economic development cannot be overstated. So, this was one of the important line, you can see that and also was thought about to have a lot of infrastructure in the country.

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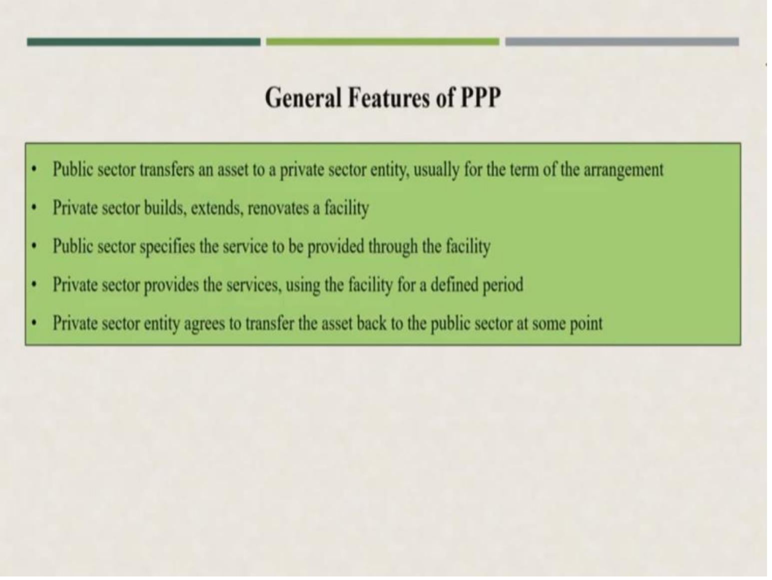

So, if you see the general features of PPP, like what the public sector will do and what private sector will do? So, here I wrote 5 points like public sector transported and assets to the private sector entity, usually further term on the arrangement. So, whatever the arrangement has been come up, they will just transport the assets. Now, the task by the private sectors will build the facility will provide the services in the defined period and privates.

This private sector entity agrees to transfer the assets back to the public sector at some points so that was the general features of PPP projects. So again, I am explaining that private sector will transfer the assets to the private authority. Now, private authority will start the services for the particular time period and was that time period will lower this will these all assets will be transferred to the local authority.

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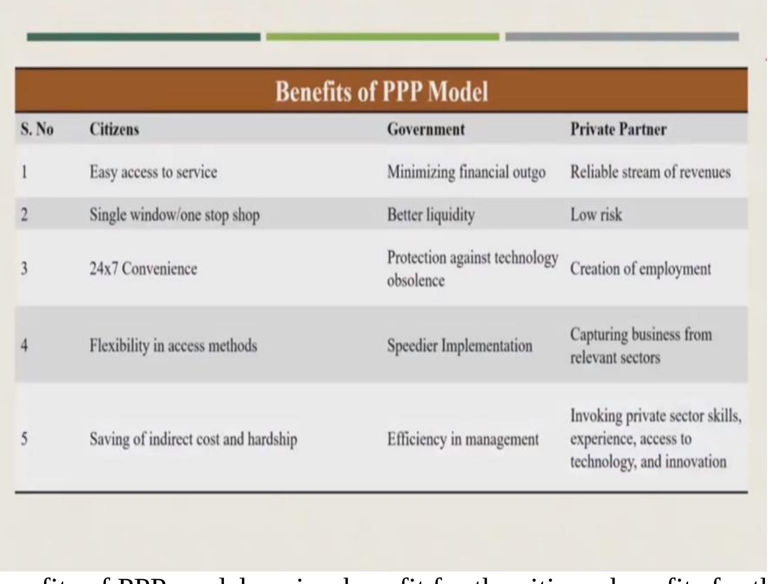

Benefits of PPP Model

S. No	Citizens	Government	Private Partner
1	Easy access to service	Minimizing financial outgo	Reliable stream of revenues
2	Single window/one stop shop	Better liquidity	Low risk
3	24x7 Convenience	Protection against technology obsolence	Creation of employment
4	Flexibility in access methods	Speedier Implementation	Capturing business from relevant sectors
5	Saving of indirect cost and hardship	Efficiency in management	Invoking private sector skills, experience, access to technology, and innovation

So if you see the benefits of PPP model, so is a benefit for the citizen, benefits for the government and benefits for the private partner. See, if you do not know the proper benefit for all the stakeholders is very difficult to accept such kind of idea. So, if you see the just for citizens first now, I think it was very good for them for the citizens for because easy access to the services, single window and all 24 by 7 collections, flexibility is not only for solid waste management.

Only but all kinds of I thing all kinds of PPP projects like government also the better liquidity, minimizing the finance budget from the government, implementation, efficiency of management that was a lot of benefits for the government. Now, I think is good for the citizens, good for the government but also it should be benefit for the private company then only private sector will come to the will collaborate to the to the government body.

Like they found that creation of employment, low risk under a lot of revenues used to be get it in the projects like revenue means I think you know in the solid waste management the revenue in the form of energy production revenue in the form of collection, revenue in the form of production of compost, biogas, energy, I think that is why a lot of revenues was their fund, that kind of benefits was for the private sector.

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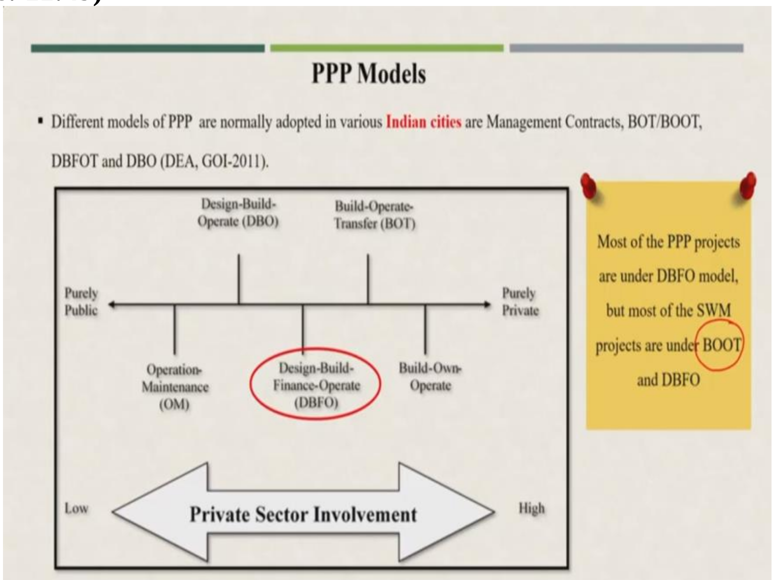

Now, when you talk about the PPP models so, there are a number of models available. So, here I made it like private sector involvement based on that where the low involvement, low participation to the high participation. So, it started with the simple DBO model Design-Build-Operate then followed by it started with BOT under DBFO Design-Build-Finance-Operate so, likewise because there are lot of involvement of the private sector.

But in India, the major was one was accepted like design, build, finance and operate. So, are most of the PPP projects was under DBOF for model and also the BOT means Build-Own-Operate and Transfer. So, this was another model was being used for India or Indian cities. So, I will just explain one by one, what exactly this model.

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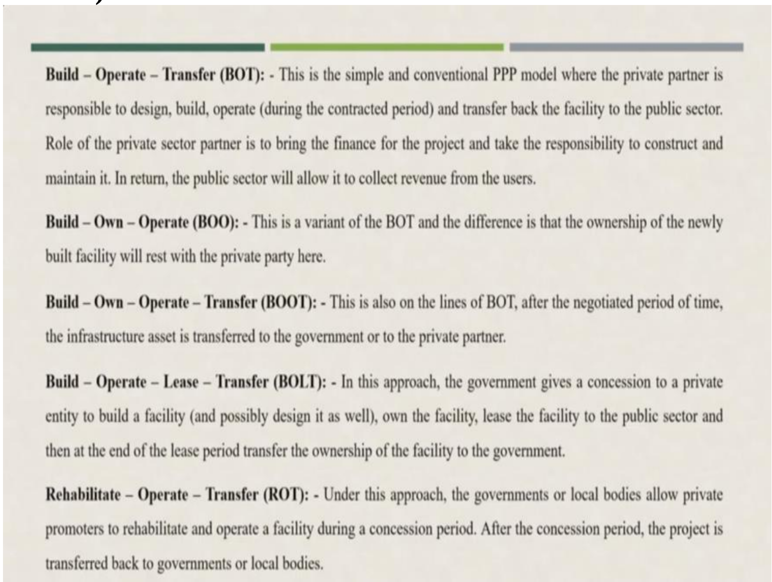

So, like first is the take the BOT model like build, operate and transfer. So, it is a very simple and very conventional PPP model, where these private partner is responsible for build first, I think for build before building, you will be required design, so, design, build, operate for particular contract period and after that you transfer to the local body that was the model was BOT, then came the build, own and operate.

So, in this case, the design and built was from the private sector and also operate and they these operate for the entire period. So, there is no transfer to the local body and also the these particular infrastructure will owned by the private sector, but in earlier that Build-Operate-transport the BOT model, the winner was the local authority. Now, these came that build, own, operate and transfer so, this is the same was in the BOT but only another own has been added that is for own.

So, here the private sector will design build and also will be the owner of the that particular infrastructure and as an owner this will operate for the contractor, particular contracting period for maybe 15 years, 20 years and it will transfer to the local body. Now, this Build-Operate-Lease-Transfer so in this approach, the government gives a concession to a private entry to build a facility, own the facility, lease the facility for to the public sector and then end of the lease period, transfer ownership of the facility to the government.

And this another one the Rehabilitate-Operate-Transfer ROT under these approach the governments or local body allow private promoters to rehabilitate and operate a facility during the concession period and after the concession period will lower the project is transferred back to the government or the local body.

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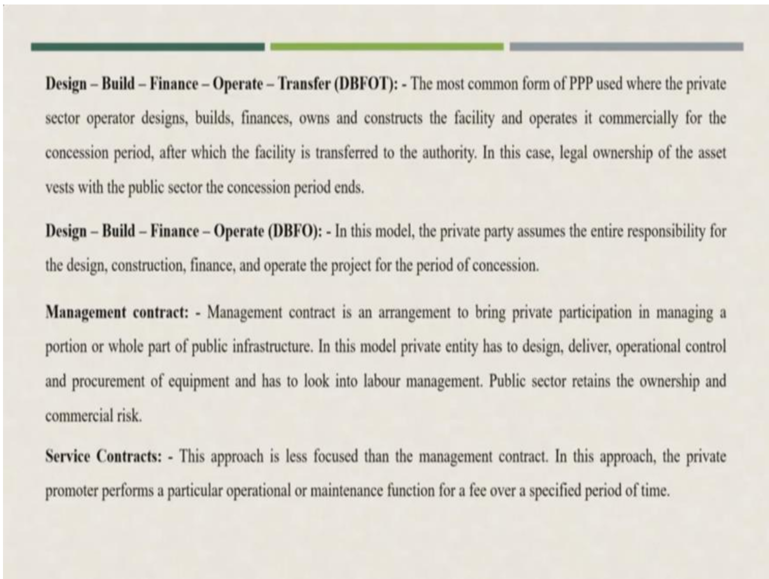
Design – Build – Finance – Operate – Transfer (DBFOT): - The most common form of PPP used where the private sector operator designs, builds, finances, owns and constructs the facility and operates it commercially for the concession period, after which the facility is transferred to the authority. In this case, legal ownership of the asset vests with the public sector the concession period ends.

Design – Build – Finance – Operate (DBFO): - In this model, the private party assumes the entire responsibility for the design, construction, finance, and operate the project for the period of concession.

Management contract: - Management contract is an arrangement to bring private participation in managing a portion or whole part of public infrastructure. In this model private entity has to design, deliver, operational control and procurement of equipment and has to look into labour management. Public sector retains the ownership and commercial risk.

Service Contracts: - This approach is less focused than the management contract. In this approach, the private promoter performs a particular operational or maintenance function for a fee over a specified period of time.

And this is the important one that Design-Build-Finance-Operate-Transfer DBFOT says most common form of PPP use, where the private sector operate, private sector operator design, build, finance also own and construct the facilities and operates it commercially for the concession period after which the facility is transferred to the local authority. So, in this case, legal ownership of the assets vests with the public sector the concession period ends.

So, these are another one like Design-Build-Finance-Operate. So, in this model, the private party assumed that entire responsibility of design, construction, finance, operate for the period of concession so, there is no transfer in this case. So, means I think that facility will get over after that. So, this could be good for the (())(16:59) so is a design period is 20 years so the that facility will would not be required after that.

So, now, there are 2 kind of management project under the any kind of model like first is the management contract and other is the service contract. So, in the management contract the management contract is arrangement to bring private partnership in managing a portion or whole part of the public infrastructure and this is for entire management are in the participation in the management for the entire project or portion of the of the project.

So, in this case, the private entity has to design, deliver, operation control and procurement of equipment and has to look into labor management, public sector retain the ownership and commercial risk. Under in service sector, this approach is less focused than the management contract. In this approach the private promoter performs a particular operation or management function or for a fee over specific period of time. So in the solid waste management projects many projects under the management contracts and many projects under the service contracts also.

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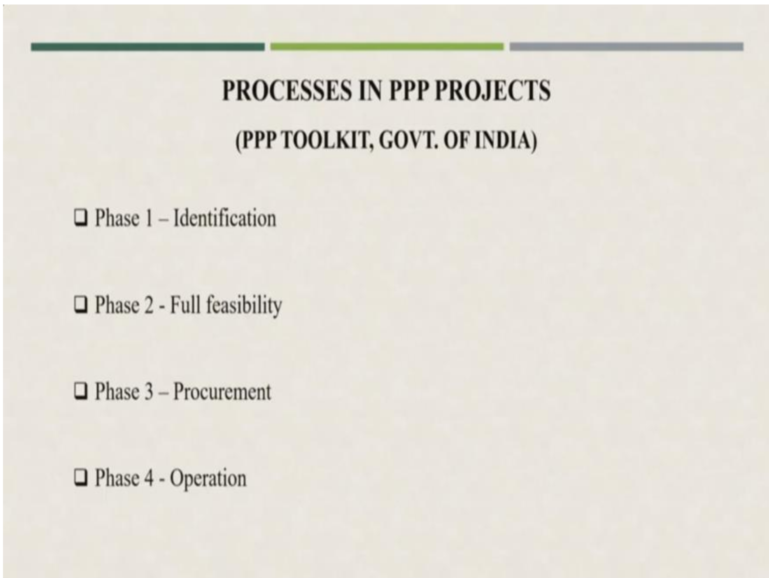

Now, the processes in PPP projects so, there are 4 phases like identification, full feasibility, procurement and operation are the 4 major process phases under the PPP projects.

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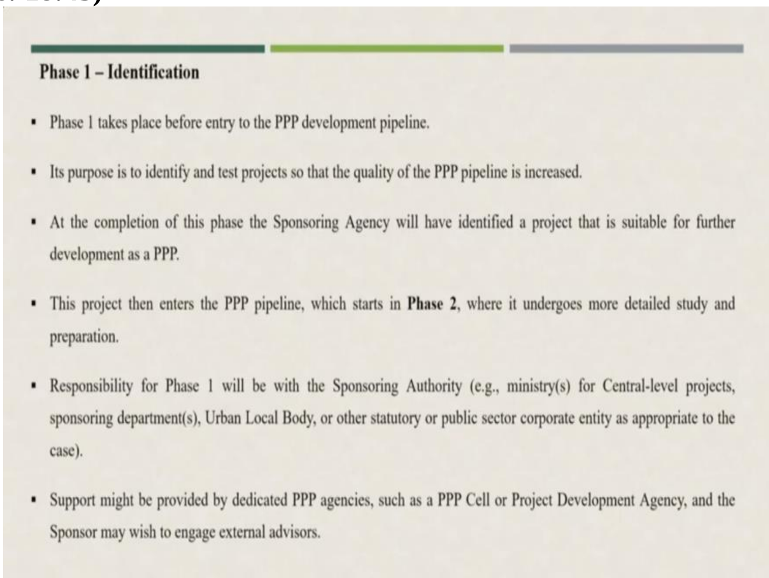

So, we can see the one by one the first is the identification. So, in the identification take place or phase 1 take place before entry to the PPP development pipeline, its purpose to identify and test the project so that the quality of the PPP pipeline is increased and at the completion of this phase, the sponsoring agency will identify a project that is suitable for further development as PPP.

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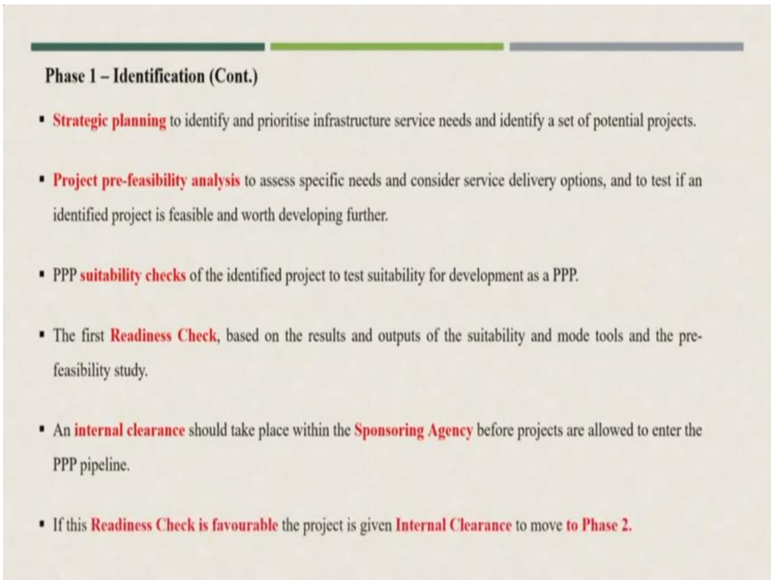

And also the strategic planning to identify the identify and prioritize the infrastructure service need and project pre feasibility analysis is required is there in the phase 1, PPP suitability check and read lines check, internal clearance should take place within the sponsoring agency.

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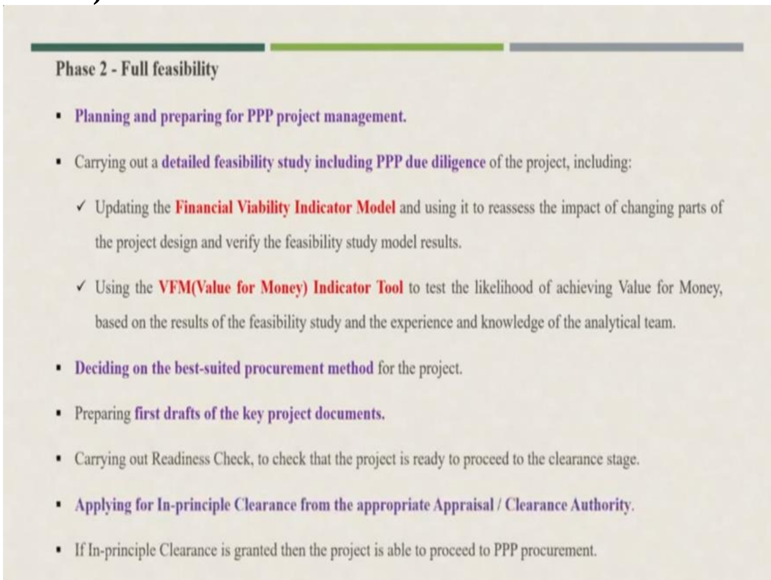

Now next is the full feasibility so planning and preparation of PPP projects management. So carrying out a detailed feasibility study including PPP due diligence of the projects is including the Financial Viability Indicator Model value for money indicator tool and deciding on the best-suited procurement method for the project. So, the first draft of the key project document will be created.

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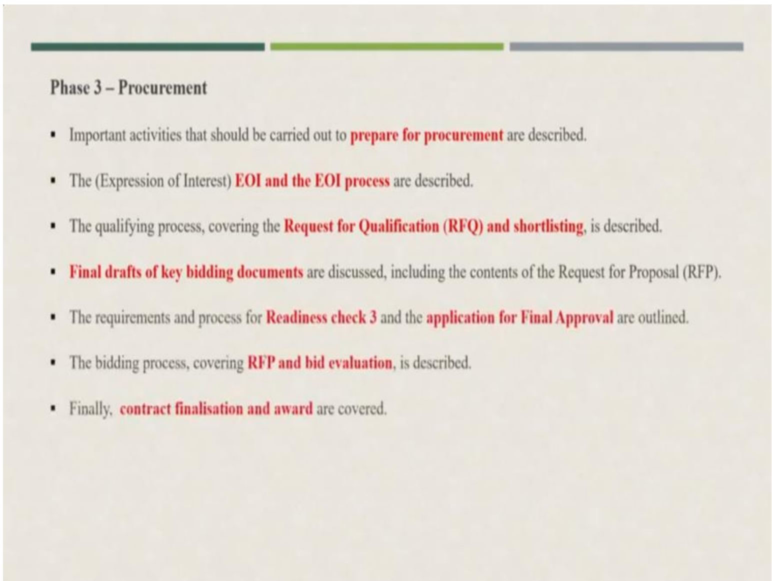

Now procurement, so important activity that should be carried out to prepare for procureming are described and hear Expression Of Interest EOI process described and also the qualifying process covering the request for qualification and short listing final draft of key bidding documents are discuss.

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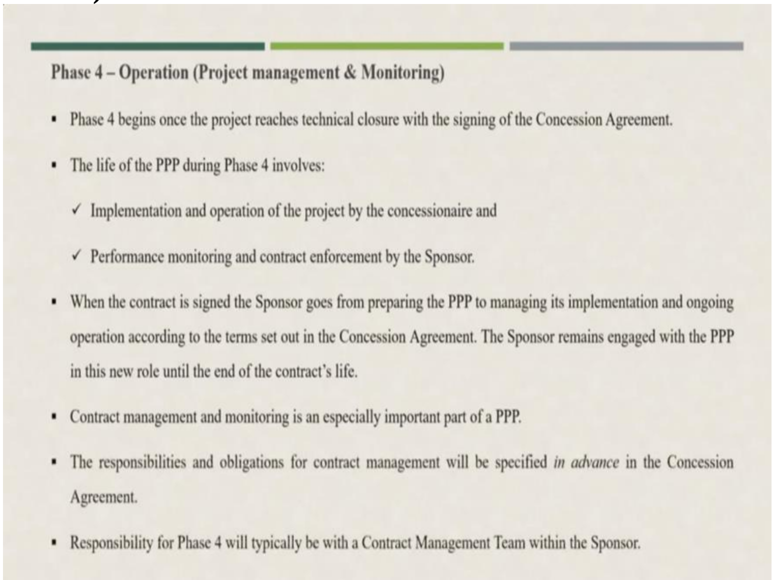

So and Now last is the operation so, in the phase 4 beings the project is reached technical closure with the signing of concession agreement, life of PPP during phase 1 involves the implementation operation, performance monitoring these are the 2 major points and once the contract is signed the sponsored goes from the preparing the PPP to management is implementation and ongoing operation. So, the responsibility of phase 4 will typically be a contract management team within the sponsor.

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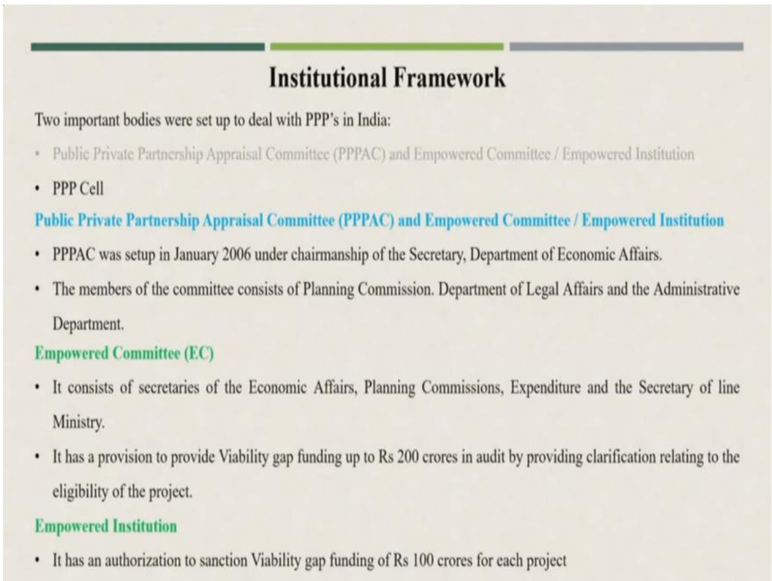

Now, if you see the institutional framework, so there are 2 important bodies were set up a deal with PPP in India. So, the first is the public private partnership appraisal committee and empowered committee and the other is the PPP cell. So, if you talk about the public private partnership appraisal committee was set up in January 2006 under the chairman of Secretary, Department of Economic Affairs, this is specially for the JnNRUM program.

So, member of committee consist of Planning Commission, Department of legal affairs and administration department and is a empowered committee like it can consist of secretary of the economic affair planning commission and it is provision to provide viability gap funding up to rupees 200 crores in audit by providing clarification related to the eligibility of the project and the empowered institutions it has the authorities to sanction viability gap funding of rupees 100 crores for each project.

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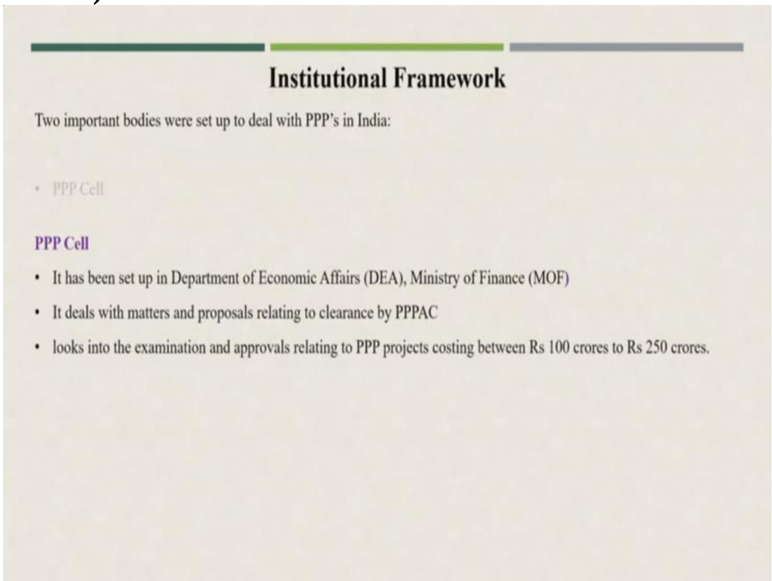

Now, next is the PPP cell so, PPP cell it is set up in the Department of Economic Affairs, Ministry of Finance it deals with the matters and proposal relate to clearance of same PPPAC and looks into a examine and approval related to PV projects costing between rupees 200 crores to 250 crores.

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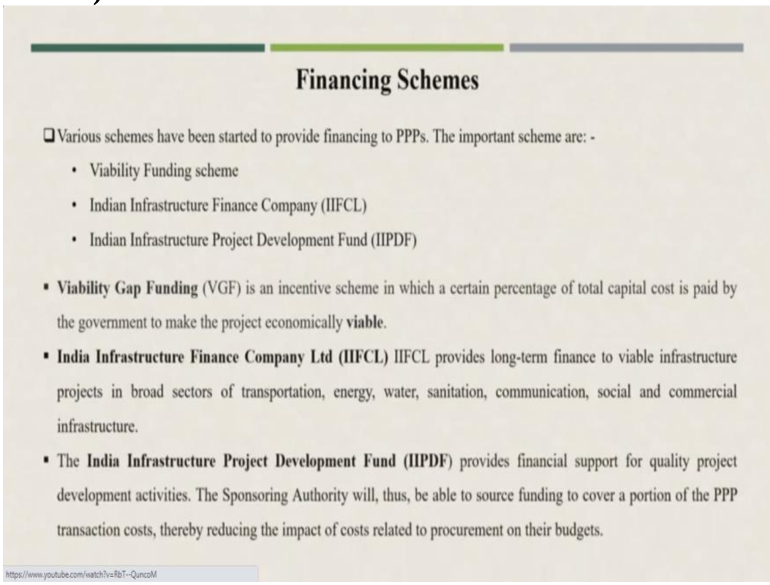

So, now financing scheme so, various schemes have been started to providing financing to PPP projects like first is the viability funding scheme or viability gap funding is a incentive scheme in which certain percentage of total capital cost is paid by the government to make the project economically viable. Now, next is the Indian Infrastructure Finance company provides the long term finance to the viable infrastructure project in broad sector of transportation, energy, water, sanitation, communications, social and commercial infrastructure.

And the India Infrastructure Project Development Fund provide financial support for quality project development activity, the sponsoring authority will does be able to source funding to cover a portion of PPP transaction costs thereby reducing the impact of costs related to procurement on their budget.

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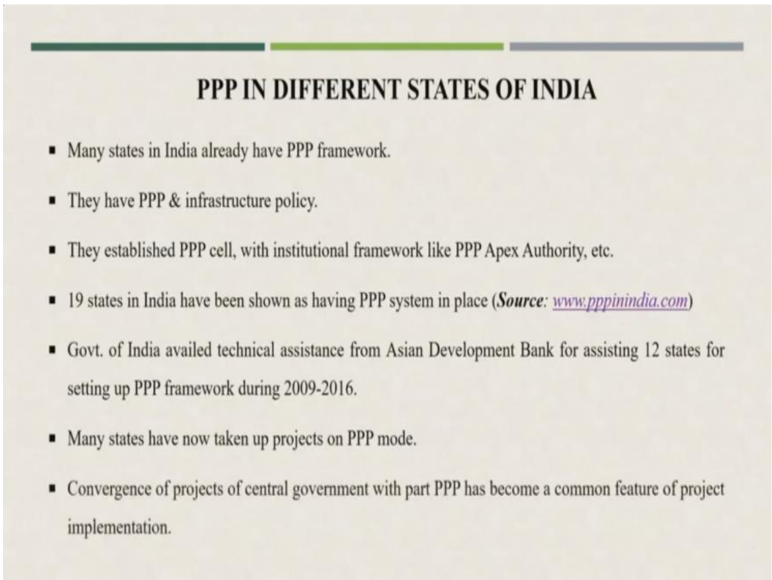

Now, PPP in different states of India, like many states in India already have PPP framework and they have PPP in infrastructure policies. They established PPP cell with the institutional framework like PPP effects authorities. Now currently the 19 states in India have been shown as having PPP system in place so you can check this source like www.PPPinindia.com. So even what are the projects are running or projects has been ran already are finished under the PPP program.

You can see in this website and government of India well technical assistance from ADB Asian Development Bank for assisting 12 states for setting up a PPP framework during 2009 to 2016.Many states have now taken up the projects on PPP mode.

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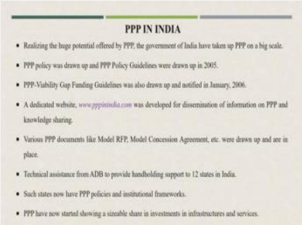

PPP in India like realizing the huge potential offered by PPP the government of India has taken the PPP on a big scale and PPP policy was drawn up and PPP policy guidelines were drawn up in 2005 and PPP viability gap funding guidelines was also drawn up and notified in January 2006 and dedicated like website like www.pppinindia.com was developed for dissemination of information on PPP and knowledge sharing.

And various PPP document like model RFP model concession agreement were drawn up and are in placed. Technical was that Asian Development Bank. Now there are a lot of infrastructures projects are running under the PPP model. Now, even the new academic institutes also have been are running in India under the PPP mode. So there are a number of success stories under the PPP projects, there are some failures studies also are there. I think it is very difficult to get such kind of data. But for these scores, I had come up with few success and failure under these PPP projects so that we will see in the next class. Thank you.