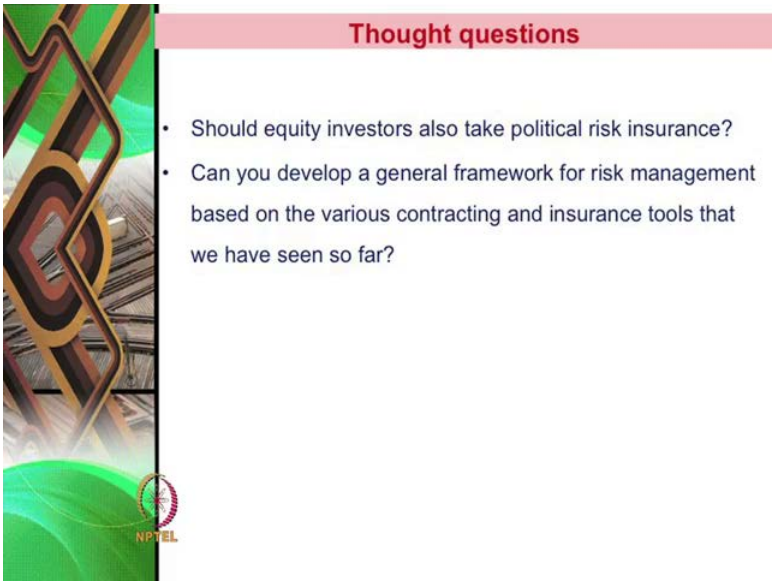
Infrastructure Finance
Prof. A. Thillai Rajan
Department of Management Studies
Indian institute of Technology, Madras

Lecture - 36
Context of Infrastructure Development

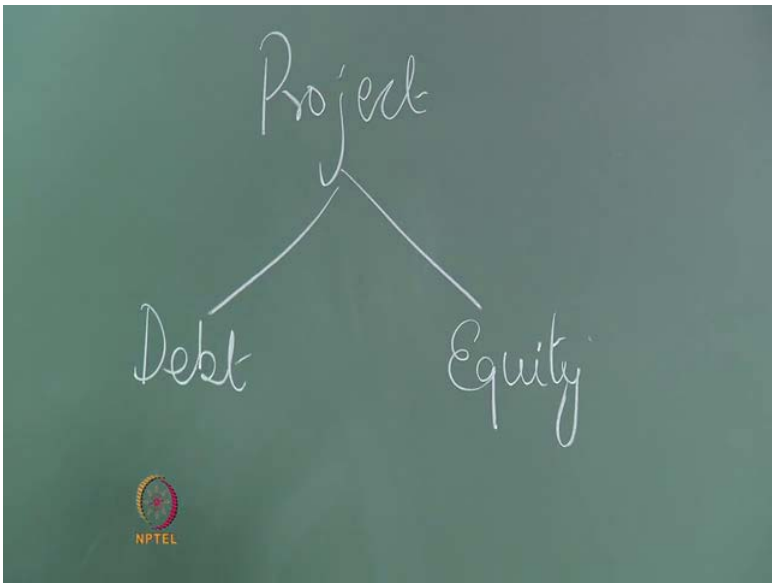
Hi, welcome back to this course on infrastructure finance. This is lecture number 36 and in this lecture we will talk about the context of infrastructure development. So, far we have talking about infrastructure finance, but then finance does not happen in a vacuum. It also depends on the context at which the infrastructure projects are being set up. So, we will actually kind of understand little bit about the context in infrastructure development. And essentially the conditions that actually encourage private sector investment. Before we actually do that let us try and discuss questions that we had at the end of the previous lecture.

(Refer Slide Time: 00:56)



We had two questions question number 1 was should equity investors also take a political risk insurance. So, we will try and discuss this question in a broader perspective.

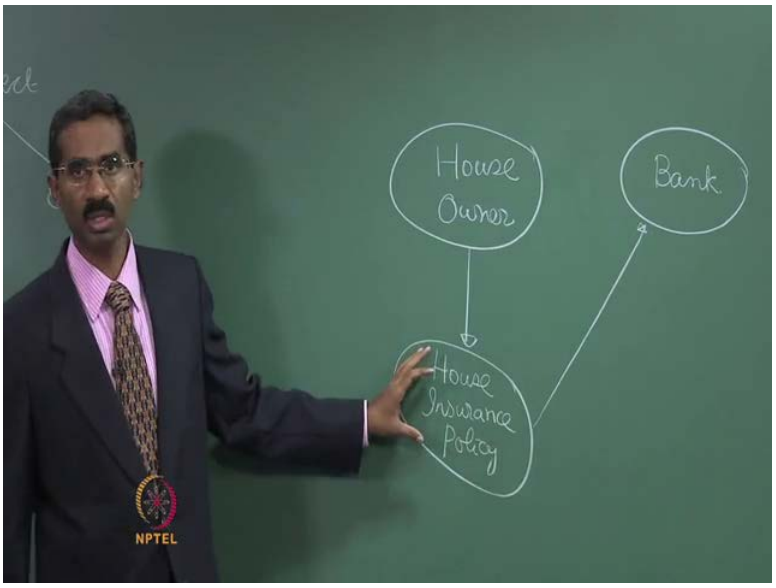
(Refer Slide Time: 01:16)



Let us say for example, there are two kinds of investors in a project right. So, if we really look at a project, so there are debt investors and then there are equity investors. So, the question that we had is should we also have equity investors taking political risk insurance. But, let us first try and understand how the insurance generally works or. Let us take a very simple example let us say for example, you are taking a housing loan and when you take a housing loan.

Let us say from a bank the bank would also require you to actually buy an insurance for the property. So, should there be any unfortunate circumstance there be any damage to the property then the bank will actually claim the insurance. And you know the insurance claim will be first used to settle the outstanding loan from the bank and then whatever is a balance that will be used to pay the you know house owner.

(Refer Slide Time: 02:18)



Let us say you have the house owner and then you have the bank. So, the house owner takes a house insurance policy. So, should there be any damage to the property the proceeds of the policy will first go to the bank right. It will first go the bank and then whatever is a residual after settling the loan from the bank it will be going to the house owner. So, that is the way in which the insurance works, so lenders get protection normally what happens is the bank also has house as a security. But, then if the property is damaged that no longer is the security for the bank.

So, over and above the assert being the security the bank would also need some kind of insurance protection. So, we can see you you know this kinds of insurance protection in many of the asset categories like vehicle loan and so on. Now, let us say for example if the housing owner repays the bank loan then the bank releases the insurance policy. And then the insurance proceeds after that is assigned in favor of the house owner. But, till the time the loan is in existence the claims from the insurance policy will first go the bank same is the case with infrastructure projects as well.

So, when we talk about political risk debt holders will demand political risk from the project. So, that means the equity owners will actually have to take political risk insurance and they will have to pay for the risk insurance. And then the proceeds will be in such a way that should there be any political risk occurrence. Then the claims the payments from the insurance will actually be first going to the debts holders ok. Because

the debt holders will need to be protected first, but the question is should the equity investors also go for political insurance.

So, there are many arguments for example, should equity investors use insurance at all is a bigger question. See first of all equity is basically you know investors who actually assume all the residual risk and therefore it also reflected in the share price. So, the equity investors should not you know actually go for any insurance is one thought. The second thought is that you know equity holders should actually be assuming the business risk and they should not be hiding behind the safety of a insurance policy. And if they feel that the risk is unacceptable they should simply not be making the investment at all rather than making the investment and then seeking the insurances.

So, that is the second argument, but then we are talking about not any kinds of risk we are talking about specifically political risk which is not in the control of the equity holders, but is a much you know broader you know risk that can even affect the equity investors. So, what are the problems in equity investors actually taking in political risk. So, normally whenever there is an insurance claim that is being paid the insurance firm also has the claim over the underlying assets. Let us say for example, in the case of the housing insurance that we talked about, when the insurance policy pays when the insurance claim is being made on the insurance company. There after the claims has been paid then the insurance company would actually have right for the underlying asset.

Now, if we actually assume the same principle for the equity investors as well if the equity investors go for political risk insurance. And if they actually claim a political risk insurance then the insurance company would actually have right for the underlying assets, which is the case is the equity share holding right by making by going in for insurance policy. The equity holders are you know liable for assigning their rights as equity share holders to the insurance company should there be any political risk occurrence. Now, what is the problem in that the problem in that is usually lenders also ask a security of the equity as a security for lending to the project company.

So, whenever there is you know political insurance and the project is defaulted. Then the lenders would actually use the equity as an asset to recover part of their payments. Now, at the same time, if the equity investors also claim political risk insurance, and if the insurance company actually claims the underlying equity as an asset for settling the

payments. Then it goes to be very difficult because the equity is already been assigned to the lenders as security. And the equity holders do not have any claim on the equity because it has been assigned and the lenders have used the underlying equity as security because the project has defaulted.

So, this issues has to be resolved before the equity holders actually claim or start taking political insurance. So, the second question that we have is can we actually develop a general frame work for risk management based on the various contracting and insurance tools that we have seen so far. See remember we talked about various types of risk, but then the tools of risk, management that we talked about broadly two categories.

(Refer Slide Time: 08:06)

So, we talked about risk management tools is largely under two categories right. We talked about contracts and we talked about insurance. Now, we will have really understand when do we actually go for contracts and when do we actually go for insurance. So, my question is to try and see can we actually develop some kind of general framework whereby we can decide. This are the risk that can be contracted and this are the risk that we need to be ensured, so I am going to suggest a general framework.

(Refer Slide Time: 08:48)

Let us say we look at classifying the project risk in a broadly 2 by 2 matrix. On the one side of the matrix on the x axis we actually map the risk based on our ability to control fine. So, when we are talking about the ability to control it is not ability to control from a lenders perspective or the ability to control from the share holders perspective. It is about the ability to control the risk by anyone who is going to be associated with the project right, so on the y axis.

You actually have the two types of risk that we talked about we talked about the project specific risk and we talked about the market risk. Now, within this within these categories of risk how can we actually map the different the different risk factors based on the ability to control. So, on the quadrant on the left hand side under the project specific risk you have force majeure. So, force majeure are actually what is known as acts of God it can be fire it can be floods it can be due to you know man made events like terrorism. And so on so these are something that is going to be very difficult for anybody to predict or for anybody to control these are all uncertain unpredictable.

Therefore, the ability to control these events from these events to from occurrence is very low. So, that is why I have actually classified it as in this in the quadrant in the left most quadrant and then we talk about. You know there are some risk let us say for example, the operator performance right. How efficiently the project is being operated how

efficiently the turbine operates and so on. And then we talk about risk related to issuance of permits.

Now, how soon are we able to obtain the permits is a government delaying you know issuance of permits and cost overrun and delay it is a project going to be implemented on time it is a project going to be implemented on budget. So, this is another risk if it actually exists if there is an overrun this can actually affect the project. And then you have competition are they going to be competing facility that are going to be constructed are they going to be you know competing power plants are going to be come up. So, these are some of the then you also talk about support features let say for example, for the project to be constructed now we need to actually have supporting facility or electricity supply water connection and so on.

So, these are the supporting facilities and then there are various environmental risks that needs to be managed. So, if we look at you know these kinds of risk categories this can be easily controlled. Let me give an example let us talk about cost overrun and delay, so cost overrun and delay to a certain extent can be controlled by the E P C contractor.

So, it may not be possible to be controlled by let us say the debtor or the share holder. But, E P C contractor will be in a better position to control the cost overrun. So, similarly we talked about land acquisition and permits who actually issues the land acquisition. And permits it is a government that actually issues the land acquisition and permits. Therefore, government is in a better position to control the risk of providing permits. So, we actually map ability to control is very high it may not be possible by the debtors or the equity share holders. But, someone else can actually control some of these events, now let us look at some of the risk factors that are in the market right.

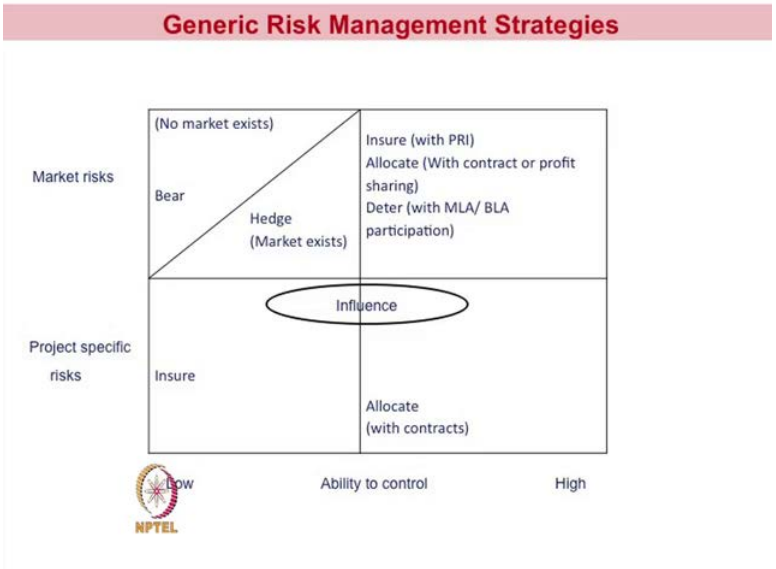
So, in the left most you know quadrant we actually have some risk where you know it becomes difficult to control right. Can we actually control the demand, let us say we are talking about demand for power. Demand for power depends on so many other factors in the economy right can we actually control it it is going to be very difficult right then are couple of other indicators.

Let us say the inflation is it possible really to have any control on what is going to be the inflation, so that is also going to be difficult. Therefore, these are all risk factors which we have very limited ability to control. Similarly, we are talking about exchange rates

risk we are talking about interest rates risk difficult to control from from a project perspective particularly in a open market economy. These all becomes very difficult to control on the other hand we have certain risk like force majeure political risk. Let us say the project is having expropriation there are some things like currency, convertibility and so…

Those are all the risk that can be controlled it may not be controlled by the share holders, but it is actually under the control of the government. So, we actually have different categories of risk which we can classify in terms of liability to control. Now, after having decided the classification based on ability to control.

(Refer Slide Time: 13:49)



We kind of see how we are going to manage the risk, so those risks where we have very limited ability to control we normally go for insurance. I will say for example floods, fire, earth quakes, terrorism very limited ability to control. So, the general guide line is we will go for insurance and those risk which we have very ability to control then we allocate in terms of contracts.

So, what is this allocation we actually sign a contract and then transfer the risk to the person who is best able to manage that risk. Let us say for example, if you want to manage cost overrun and time overrun we actually sign a contract the EPC contract right. So, that is allocating the risk of cost overrun and time overrun to the EPC contractor. Similarly, when we talked about permits we actually sign a government support

agreement which will ensure that the government is able to provide the permits you know in a in a faster manner.

So, that is again we are trying to allocate the risk to the government right. So, we are trying to allocate risk by in terms of signing contracts contract is nothing but allocating risk to that party, which is in a best position to manage those risk and if you actually have some risk which can either be ensured or which can either be contracted out. We will try and ensure that it is actually influenced in a way which is most effective. Let us say for example, you know if you are able to insurance provide insurance for a particular kind of risk. But, the insurance is very expensive can we actually influenced in such a way that, so that it can be allocated to particular counter party.

So, in which case can we actually contract it out if it is cheaper, so there are some risks which we know we need to I know. Influence this way or the other depending on which is most cost effective. Similarly, if we look at the market risks there are some risks which actually have very low ability to control which will have to be bound by the project. So, for example the demand risk then we talked about risks of inflation and all of these things it has to be bound by the project.

You may actually come back and say that some of it can actually be contracted out. Let us say when we actually have a power purchase agreement. The power purchase agreement actually removes the risk of demand and if the power purchase agreement is also index to inflation that also removes the inflation risk. Yes it is possible to contract out some of these risks, but then when you actually trying to contract out we are actually compromising on the returns project. Where all the risks are completely contracted out are allocated might actually not be making so much of returns, because the cost of contracting is also very high right and that needs to be bound in bind.

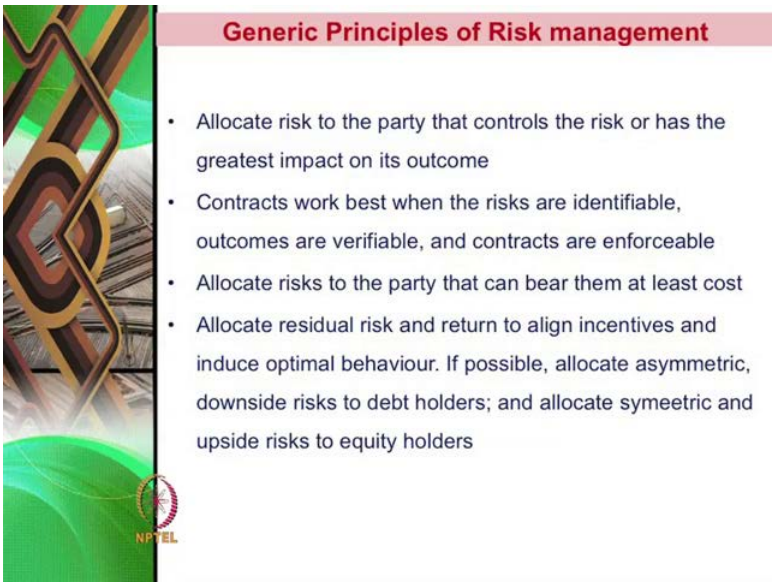
Similarly, if you look at other risks like exchange rate risk you are looking at interest rate risk you can actually contract out. For example, you can actually have a swap contract or you can actually have you know forward contract to manage your exchange and interest rate risks and there are couple of other insurance.

Couple of other contract kind of actions that we can use to manage the market specific risk. Let us say for example, you have political risk that we can actually use the political risk insurance right. So, you know we are also trying to use if it is not really possible to

actually contract out. Let us say insurance is used secondary level of production political risk can actually be you know allocated to buy a government support agreement. But, if the government is not in a position to honor the obligations then over and above the government support agreement we need political insurance.

That is what we are talking about and sometimes we can also try and deter political risk by. Let us say using multi lateral bilateral agency lending or we have export credit agencies which will kind of you know discourage political risks that we are actually looking at you know the quadrant in market risk where we have very high ability to control. So, these are some of the generic risk management strategies that you should be aware of. But, there are some general principles of risk management.

(Refer Slide Time: 18:15)



That we will discuss one is when you talk about risk allocation we should allocate risk to the party that controls the risk or has the greatest impact on its occurrence. So, try and allocate risks who is to the party who is in a better position to manage them. So, we are talking about issuing of permits it can be address by the government support agreement. We are talking about cost overruns that can be address by the EPC contract we are talking about operation maintenance that can be address by the O and M agreement. So, in each of these cases we are allocating it to that party who is you know better.

Better position to manage those risks we are talking about fuel supply then we are trying to actually have a fuel supply agreement and there by allocating the risk to the fuel

supply right. Second we also need to understand that contracts work best when the risks are identifiable. That is when you are trying to define the provisions of the contract we should be in a position to define under what circumstances will the terms of the contract hold right. What are the circumstances that should be excluded from the contract, so the risk factor should be identifiable right.

We are not saying that there is no risk at all, but the risk should be clearly identified and the outcomes are verifiable right. Can we actually measure the outcomes let us say for example can we actually measure the performance of a plant. It could be in terms of amount of power generated or it could be in terms of the time for which it is available and so on and so forth. And then the contract should be in a position to be enforced, let us say if there is a dispute or if one party is not able to handle the terms of the contract. Then we should actually have legal re course, so that the contracts can be enforced. The third is we have to allocate risks to that party that can bear them at the least cost.

Let us say you have multiple alternatives in terms of managing a particular risk. But, then we will have to allocate we will have to contract it to that party which will be able to you know where it will be able to bear them at the lowest possible cost. So, that will ensure that the entire project cost are kept to be minimum right. And then finally we have to allocate the residual risk and return to align incentives and induce optimal behavior. So, basically we are talking about structuring incentives to induce optimal behavior between the investors. So, we are talking about risks let us say broadly it can be classified as two types.

One is your you know down side risk and the other is your upside risk down side risk is you know. If that event happens if down side risk is basically you know if that if there is a non occurrence of a particular event then it can actually. Then it can actually affect the project investors if say there is a delay in completion of the project. Then it actually affects the project investors what is the upside risk upside risk is if that event actually occurs. Then it can actually provide some kind of benefits to the investors, right. So, if there is an increase in price it can actually to an increase in revenues and it can to an increase in profits, so that is your upside risk.

So, the general role is you know the debt holders should actually bear the down side risk. So, if the project is not been able to be completed on time if the project is the cost

escalation. Then the risk fact should be have to be bound by the debt holders on the other hand. You know any upside will have to be bound by the equity investors. Why because any gains from the upside will actually go to the equity holders and therefore, they should also be willing to assume this risk. If there is any increase in tariffs if there is any increase in traffic who is actually going to get the maximum gain out of this. So, it is the equity holders who will have to get the maximum. So, any of any risk related to this upside will have to be bound to the bound by the equity holders.

(Refer Slide Time: 22:26)

Now, let us look at the topic today topic which essentially is trying to understand the context of infrastructural development. Despite the fact that the course is largely oriented towards private sector infrastructure development, we need to be clear that public sector is going to play a major role in terms of developing infrastructure. In fact for the forcible future we are going to see you know significant amount of public sector involvement in terms of infrastructure development. So, that is the context so why is that important for us to really understand public sector infrastructural development. Because it is only an effective public sector that can actually attract private sector involvement.

So, if you really talking about two large you know operating models in the economy one is the public sector model the other is the private sector model. And for the private sector model to thrive the public sector model also have to be healthy the public sector model will also have to be you know vibrant. If we actually have a weaker public sector model

and we are talking about private sector involvement then it is not going to work at all. So, the entire infrastructure should be functioning in a very you know robust and sustainable manner. And therefore it is also important therefore to understand how we can actually improve the efficiency of public sector infrastructure.

So, essentially we talk about you know successful providers of infrastructure have to have three basic characteristics one is there has to be very clear and coherent goals right. What should be the mandate what should be the objectives of the infrastructure providers So, that should be very clear is it actually going to be providing facilities to the large number of people is it actually going to be providing access at the lowest cost. Is it going to be able to provide access at very high levels of service quality, is it going to be providing access at the lowest price. So, whatever it is right there has to be very clear and coherent goals to the infrastructure providers.

Second is the management should be autonomous and employees are accountable. So, when I say autonomous there has to be very limited interference from the government right. The government can set very broad policy directions, but in terms of day to day operations it should be left to the management government should not dictate which of the employees should be recruited. Government should not be interfering and say you know what kind of offices should be opened. So, these are all decisions that has to be left to the management and three employees should be made accountable for their actions and results in public sector frame work.

In the governmental framework you know employees do not have very high degree of accountability as compared to what we see in the private sector. So, if we really need to have infrastructure operating on a commercial basis the employees should be made countable. And finally the third factor is financial independence if the organization is ever relaying on the government finance. And budget reallocations then it may not be able to take right decisions. Therefore, the institution the organization should be you know as much as possible financial independent. And these are the three broad you know features that we actually see in good commercial organizations.

(Refer Slide Time: 26:08)

What are the problems with public sector infrastructure enterprises ok. So, if we really look at you know government. Government really has multiple objectives some of the objectives could be social, some of the objectives could be economy and some of the objectives could be political. And when we are talking about infrastructural enterprises being run by the government or being part of the public sector. Then the multiple objectives of the government also gets spilled over to the in the infrastructural sector.

Today we are talking about let say free provision to agriculture. So, that is can we elaborate from a social or the other can be elaborate from a political perspective. If the objective of the government is to provide low cost power or power at no cost to the agriculture, then this objective then gets transferred to the state electricity board then state electricity board starts providing free power to the agriculture.

So, there is the objective of the government which gets spilled over to the to the public sector enterprises. Second is there are restrictions in establishing accountability and rewarding good performance most of the time we really look at public sector public sector employees. There is no initiative to really put in good performance because they simply feel that they are not getting rewarded right enough as compared to a person who is not performing very well right.

So, if performance is not rewarded, and if co performers get the same level of pay as a person who is actually performing very well, then there is no incentive for the performer

who is actually doing very well. So, rewarding good performance is a challenge and is not and is not so much practice in the public sector. Establishing accountability who is responsible for any failures who is responsible for good performance. So, if we are able to establish accountability then the incentives can be aligned as well and the financial status of public agencies depend on budgetary decision making and. So, the government budgets play an important role in terms of how much fund is allocated to various public agencies involved in the infrastructural development. And this allocation is not based on any any performance if the performance is very good then you actually get higher level of budgetary amounts that kind of you know practice does not really exist.

So, it is more it is more adorn and its more suited to some of the broader objectives of the government and many times pricing decisions are driven by politics. So, I was actually talking about free power to the agriculturists. In fact you know supplying power to the agriculturists is actually going to take lot more cost as compared to supplying power to urban areas. Simply because of the fact that agriculture land is so vast and wide spread and they are very far away from main load centers and. Therefore, lot of support infrastructure is needed you need to invest a lot in transmission infrastructure to actually carry power to the agriculturists right.

So, but the pricing decision does not reflect the cost that it takes to supply power to the agriculture segment. Why because this is a pricing decision that is driven for in to certain extent by political reasons. And then we have major problems that has substantially you know more labor in a public sector as compared to the private sector simply. Because in many cases public sector use the government uses the public sector organizations as a way to provide employment to some of the sections of the society.

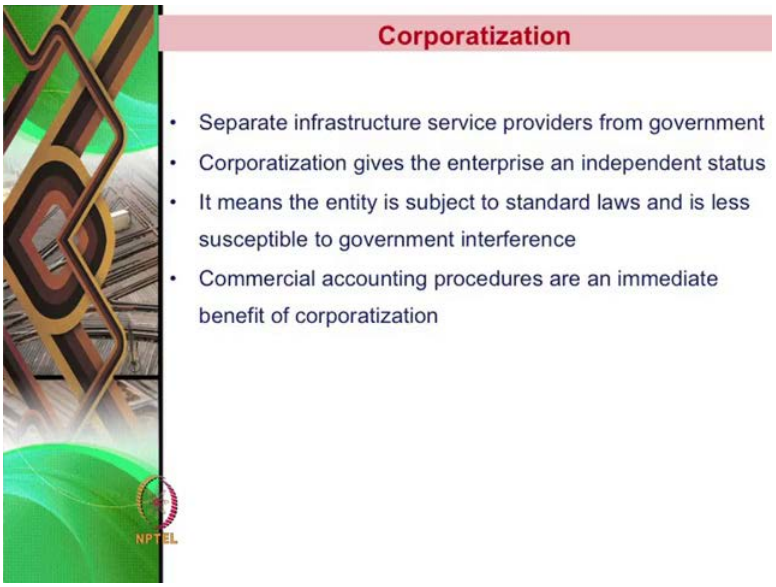
(Refer Slide Time: 30:01)

So, the important thing now is to see how we can actually enforce commercial operations in the public sector. That is we talked about some of the short coming and ills faced by the public sector and if we have really made the strengthen the public sector. Then we will have to you know make them commercially oriented we will have to ensure that they will operate on a commercial basis.

While the immediate objective would be to make the operations commercially viable the long term objective is that one day the operations are commercially viable. We will be able to get any kind of you know private sector involvement at the later stage. So, what are the broad strategies that have been used to make the operations commercially viable one is to go in the process of corporatization.

And then we talked about focused goals and making management accountable and within that we have different strategies. For example you have performance agreement you have management contracts and then you have service contracts. And then we the third strategy is to actually have pricing strategy that ensures cost recovery and provides financial independence, so we will look at each of them in some detail.

(Refer Slide Time: 31:23)



The first is corporatization, so what is corporatization corporatization is to actually separate infrastructure service providers from the government right. When we started of initially infrastructure service provision was actually part of the government as a part of the government department right. But, today we are talking about they being set up as independent organizations and they are being set up as independent corporations. So, they may be public sector organizations, but today they function not as government departments but actually they function as independent companies.

So, can you think of government department that is involved in infrastructure sector fine. So, the foremost example is Indian Railways. So, Indian Railways is a part of the government, it is not actually separate organization, separate corporate that probably provides infrastructural services right. On the other hand we can have several examples where the government department actually transform to a corporate structure right. The most common example that is quoted is the department of telephones today after liberalization the department telecommunication services in the public sector is provided by B S N L which is Bharat Sanchar Nigam limited.

So, earlier telecom was a part of government it was under the department of telecommunication right. So, what was one of the government is now been corporatized today you have corporate structure that actually provides telecommunication services. If we really look at other forms of transportisation, let us say today you have public sector

air craft carrier which is Air India. So, Air India is not a part of the government, but is actually a separate corporate entity. So, you have several such you know entities that are operating on separate corporate structures you have national hydro power corporation.

You have national thermal power corporation these are all public sector entities they are operating on a corporate format. So, once step to make government infrastructural providers to make commercially viable is to make them as corporate entities. So, we have seen several examples where before privatization governments makes them as corporate entities. One example one more example that I can name is in the case of Orissa. So, Orissa we actually had lot of you know power facilities under the department of energy government of Orissa.

And when power sector reforms were being implemented all of these assets was transformed to a separate company called the Orissa Power Generation Corporation O P G C right. So, that is the process of corporatization right before O P G C was could be privatized we actually look at corporatization as a intermediate step, which will facilitate subsequent privatization. So, what is what does that mean what does corporatization result in right. Corporatization gives enterprise an independent status it is not really a part of the government there is essentially going to be an arms link distance in any transaction between the government and the corporate entity. So, though government still owns a majority of the corporate entity it is still not the government.

And it is also means that the entity will be subject to standard loss and is less susceptible to government interference. So, when you actually set up as corporate structure then you are applicable to the companies law under which you actually set up the entity right. So, that means standard commercial laws tax laws that are applicable to the corporate structure is also applicable to the new corporatized entity. And because of the fact that there is some level of separation is also expected that the level of government interference is going to be limited after the corporatization. And other benefit of corporatization is in terms of following commercial accounting procedures.

And this is actually going to bring in a lot more transparency in terms of identifying what are the large costs. And are we are we doing enough to be able to and it is going to buy sharing information by throwing light on large costs structures it is gives information in terms of how we can actually control this costs.

(Refer Slide Time: 35:55)

So, the next tool to make organizations commercially viable is to have what is called as focused goals and accountable management. So, how do we do that there are broadly three ways in which it is done, one is to actually have performance targets. Where the employees and the management of the entity clearly know what is it that they are going to be measure upon and you know and how are they going to be rewarded. What are the incentives for achieving certain levels of performance and so on and so forth. So, when you are talking about following a performance agreement method what actually happen is we retain all the decisions in the public sector right except that which is nothing there.

Is being out source to the private sector except that the way in which performance is measured. Its lot more transparent its lot more objective and there is more focus in terms of performance and achieving performance. And for that to happen it has to be you know substantial development of information technology, whereby we have different levels of information systems like management information systems and executive information systems, decision support systems and so on. Lot of investments need to be made in information technology and you know and process is and we also need to have evaluation system, so far as performance monitoring. So, we need to develop all of these before we can actually structure a performance agreement.

So, if we actually looking at you know accountability should also result in some kind of autonomy right. So, we cannot insist on accountability without giving sufficient

managerial autonomy. So, there will be a consequent increase in managerial autonomy for the enterprise and if you know they agreed upon performance targets has been fulfilled then there will be rewards for workers and managers as well. So it is both you know performance and pay, so we are talking about bringing up bringing what is called as pay for performance culture in the public sector. So, having this performance based management helps to build incentives and also to monitor the incentives in the public sector regime. And so that is an important step in making the organization to be commercially viable the second is to actually go in for what is known as management contracting.

(Refer Slide Time: 38:31)

So, in the management contracting largely the employees of the existing entity remain with the public sector, but then you bring in key people from the private sector right. And the private sector will then be responsible for the operations and it will also give scope for the broader responsibility for the entity right and we saw this kind of an example.

In the case of Orissa power sector reform as well where you know we actually had a management contract and we had key people from B S E S they actually came. And over saw the transformation the corporatization process in the case of Orissa power sector reform. But, there are some difficulties in doing these management contracting as well because you know a public sector entity has you know lot of compulsions and

restrictions on how they can actually function, and when you actually have management from the private sector responsible for the operations and having responsibility for major decisions such as productivity and quality. It is going to be very difficult for them to function under the existing constraints without you know much of flexibility and so on.

So, under many instances management contracting has lead to a failure simply because the private sector management has not been able to perform as they would like because of the constraints of the public sector management. But, there are instances where there have been successful as well and the instances where they have been successful also dependent on the kind of incentives that was given in management contract. For example, we are talking about contracting and pay fees on two categories one is the fixed fee irrespective of performance.

So, the managers from a private sector will be paid a fixed fee for the amount of time that they are involved with the organization right. Or the second is you actually pay fee based on performance that is if you are able to achieve certain level of performance then you actually get higher fee. So, the incentive is then aligned for both the private sector and the public sector the private sector gets compensated more if they are able to you know achieve more success.

And rather than being paid a fixed fee where there is no enough incentive for the private sector to actually you know work as hard as possible. But, generally it is felt that management contracting is not a long term solution, but it is more useful as interim arrangements, where both the private sector and the public sector try and learn to understand each other and try and gain from the partnership experience.

(Refer Slide Time: 41:20)

So, the next example in terms of making public sector commercially viable is called as service contracting. And where we actually you know take out specific components and then have the private sector participate in those activities. And generally the advantage of this is considered to be it is you know it is flexible and cost effective for increasing productivity and for making it more responsive to users. And another advantage is that tap expertise is too expensive to maintain permanently on public pay rolls.

Let us say for example, there is a large data center that is being set up by the public sector and then you know there has to be some kind of expertise needed to maintain, the thing but then for maintaining that you do not need somebody full time. But, you need somebody who is having a lot of experience in doing it in case if the public sector wants the maintenance on its own. It will have to hire somebody, but then you know the talent might not be needed full time. But, if it actually been outsource if the entire maintenance has been outsource as a service contract.

Then it is possible to access those expertise, but at the same time we do not have to have them full time on a public roles. And then pay them salary for the entire time that they are going to be involved right. So, we see this kind of service contracting in so many places let us say for example, today if we look at in railways the catering service in railways today is been contracted to private service providers right.

It is no longer the employees of Indian Railways who are doing the catering other services in trains and other example is. Let us see in the case of Indian Airlines or Air India. Air India runs what is called as the frequent fly up program to reward flyers who frequently you know use Air India and now the entire program of frequent fly up program is been outsource. So, that is the service that is actually provided to some flyers and air India is actually contracted out the entire service provision to a private operator. So, we have several such service contracts you know in many cases the state electricity board have actually outsourced billing activity right.

Some of them have outsourced the collection activity, so these are all specific service contracts that we have been able to incorporate in the public sector frame work to make it. To make the entire process lot more effective and what more the service contracting need not be there for the entire you know organization. It can be for a specific geographical zonal region as well and when you actually trying to contract it out for a particular region, you are also been able to get competition across multiple providers right. So, there is some kind of benchmark between different providers to the same kind of service in different regions generally it is been used for maintenance services. But, as I was giving you some examples we are trying to see in other areas as well. So, service contracting is being increasingly used to increase the commercial orientation of public sector enterprises.

(Refer Slide Time: 44:28)

And finally we are talking about the pricing strategy you know for the organization to be commercially oriented. You need to actually have reliable revenue streams and when you have reliable revenue streams that also gives the providers more autonomy. We are able to take decisions independently, so today in India we have what is called as you know public sector enterprises. So, public sector enterprises that are profitable they have lot more financial autonomy as compared to organizations that are not so profitable right, so we have Navaratnas.

So, some of the organizations are called Navaratnas large organizations are actually very profitable. They have lot more autonomy the government has given them lot more autonomy as compared to organizations which still relay on government for financial support right. So, commercial operations you know results in lot of financial autonomy for the organizations right. It reduces budgetary transfers and by you know reducing the reliance on the government. It is also in a position to ward off interference from the government right. It reduces the interference from the government how do we actually achieve you know. Let us say financial autonomy one is you can actually cut down costs.

So, basically we can cut down costs and achieve productive efficiency right, let us say in the case of water supply. How do we actually cut down costs we can probably enhance metering, so that people are actually paying for the amount of water that they actually consume. So, metering is one strategy where you are able to cut costs then we can also you know recover costs by pricing it appropriately right. For example, if we need to create adequate capacity to meet the peak demand, and if it actually costs more for maintaining the additional capacity, then the pricing should be done in such a way that the costs can be recovered.

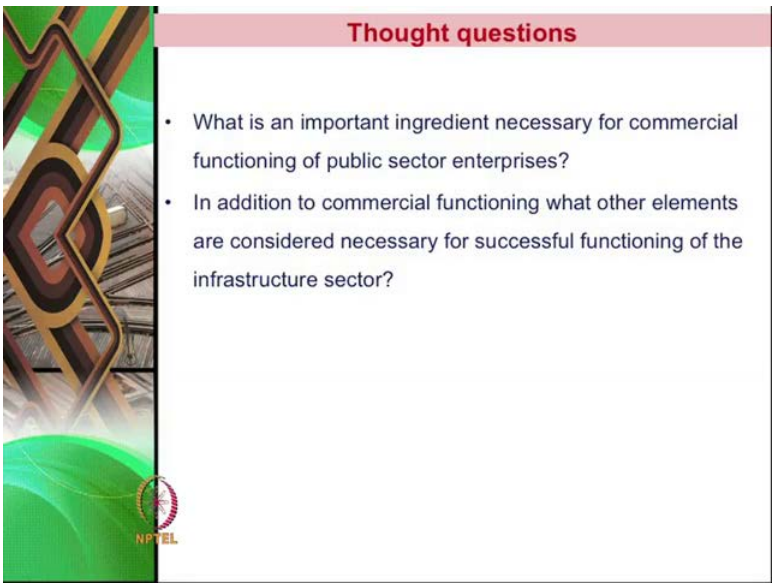
Then the third category is we are talking about cost recovery and the poor ((Refer Time: 46:33)) sorry we started late about 15 minutes late because the room was closed. So, I will take 5 more minutes, so you have to tell me that is why I told before itself to tell you that we started late. Sorry no it is not closed because I need 5 more minutes and they started 15 minutes late because the room was locked yeah it will have I told them to inform, so that you are aware of it, yeah ((Refer Time: 47:40)) then we are talking about the cost recovery. And the poor there is many times an argument being made that the poor will not be able to actually, you know be able to pay for the services. And therefore,

they know the services have to be subsidized for the poor that is one argument sometimes it is actually been fell that.

You know if there is no adequate services to the poor and then the poor are then enforced to actually procure services from external sources like other private providers, which can be very expensive. So, the issue here is not in terms of subsidizing for the poor because if we are actually subsidizing for the poor. Then does not give enough revenues and then the organization is consistently dependent on you know on budgetary support right. And if the budgetary support is not adequate then the poor cannot get you know enough access. And if there is no enough access then they are actually going to be relaying on private suppliers which can actually be very expensive.

So, therefore we need to be actually devising a system whereby the organization is not continuously reliant on the budgetary support. And therefore you know we will have to have what is called as a very predictable and transparent process where we know. So, much is going to come from revenues and we know so much is going to come from budgetary allocations. So, and the long strategy is actually going to be to ensure that you know pricing is done in such a way that, it is able to meet most of the costs. But, then where there has to be some kind of social objective involved. Then it has to be it has to be done through budgetary transfers, but the processes will have to be transparent in both the cases.

(Refer Slide Time: 49:42)



So, before we end the lecture we have a couple of thought questions. The first question is what is an important ingredient necessary for commercial functioning of public sector enterprises, and the second question is in addition to commercial functioning what other elements are considered necessary for successful functioning of the infrastructure sector. So, we will try and spend some time to discuss these questions in the next few lectures.

Thank you.