Water Economics and Governance
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Lecture – 26
Water Pricing: Need of Reforms

Hello everyone. So, welcome to the sixth week of this course and in the previous week we were discussing about the pricing water. In relation to that we will continue about talking about the how a pricing structure should be given to the water. What we are primarily going to discuss today in this session is, what are the needs of basic reforms in the pricing sector in water utilities. Further in this week we will talk about the various conflicts that one needs to take care of while pricing the water. So, that would be the agenda for the week.

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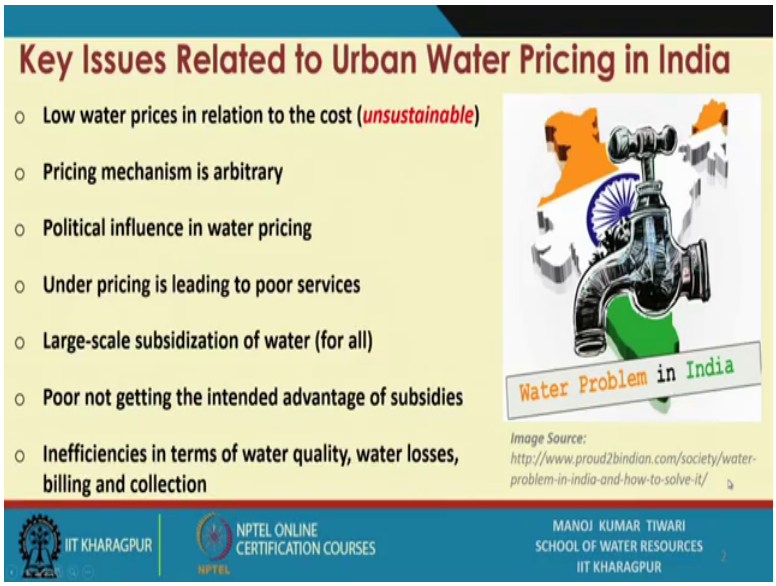

To start with, we did discuss mainly the water pricing so far in the urban water sector primarily. So, from those if you see the key issues related to the urban water pricing in India includes low water prices in relation to the cost which makes the water utility is typically unsustainable. Then the pricing mechanism in India is more or less arbitrary. there is no set, design, guidelines that which is usually adopted while pricing the water. It is heavily politically influenced and that leads to setting the tariff structure based on arbitrary criterias.

Many times politician will say that we will make water free. Now of course, there is no financial criteria justification for making water free or many times a very token amount like 50 rupees per month is charged. At places there are defined structure, but they are in limited numbers. Those kind of setup or utilities are very limited in numbers. At most places it is either free or typically a fixed charge which is arbitrarily kept without even seeing that how much revenue it is going to be generate with whether it is going to make the system sustainable or not or what is the basis itself is generally not considered and the pricing is just add abruptly decided.

The prices generally are very low and this under pricing is leading to the poor quality of services. The large scale subsidies are there in water and that is also for generally all section of the society. The water subsidies typically in India are not targeted only at the poor, like for the example in Delhi when the water was made free for the metered connections. So, it was made free for all metered connection whether somebody is living in the posh area or somebody is living in the slum.

So, if they have metered installed in their households, the first 20 kilo liter of water is free for them. Now, the problem is that this kind of subsidies are generally given to the metered consumers and the poor may not, in fact be getting the indented advantage of such subsidies. So, this overall structure leads to various inefficiencies because there is less revenue generation as we discussed in the earlier week. When there is a less of the revenue there the quality of services is also like to deteriorate and similar thing is, similar thing can be observed in India where there are lot of inefficiencies in terms of water quality, in terms of water losses, in terms of billing, in terms of collection.

So, even the billing and collection is not proper. So, many places where there is a, let us say some tariffs even if a flat tariff, monthly tariffs. So, the utilities do not send water bills. The people are not forced to pay for the water even if there is an official tariff, but there is no value or no record or no data whosoever is paying, whosoever is not paying, what action is being taken against them, what are the liabilities of not paying for the water prices.

So, the overall billing and collection system is also very poor. So, all this in combination seeks that there is an urgent need of reforms in urban water sector. Apart from that if you

see the irrigation water pricing, we briefly talked in the earlier week about irrigation system as well.

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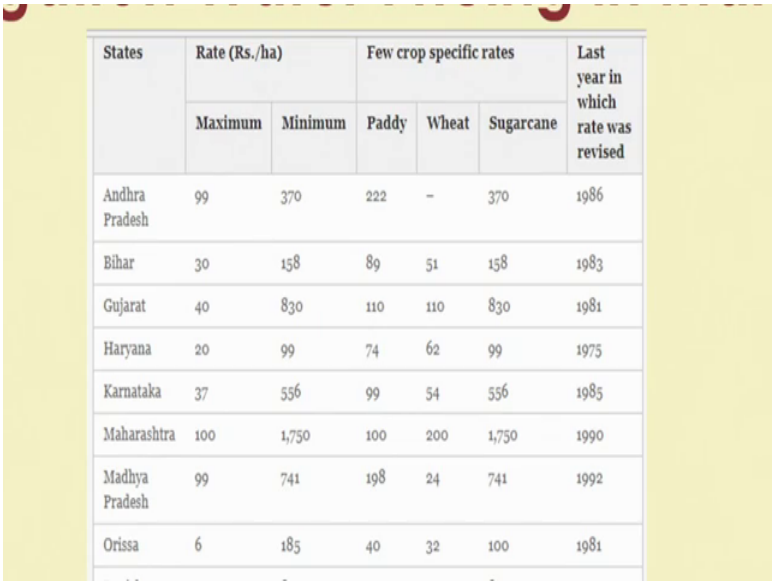

States	Rate (Rs./ha)		Few crop specific rates			Last year in which rate was revised
	Maximum	Minimum	Paddy	Wheat	Sugarcane	
Andhra Pradesh	99	370	222	–	370	1986
Bihar	30	158	89	51	158	1983
Gujarat	40	830	110	110	830	1981
Haryana	20	99	74	62	99	1975
Karnataka	37	556	99	54	556	1985
Maharashtra	100	1,750	100	200	1,750	1990
Madhya Pradesh	99	741	198	24	741	1992
Orissa	6	185	40	32	100	1981

So, irrigation water prices also are generally very low. Typical pattern is adopted based on the area irrigated in hectare or in that way. So, this is a compilation which was done by the central water commission in 2010.

And it can be seen that for various states, if you see what are the maximum and what are the minimum rates and the there are certain crop specific rates like the irrigating paddy which is a hugely water intensive crop or irrigating a sugarcane another water intensive crop irrigating wheat. So, for the different type of crops, the different rates are there and these ranges are provided so as low as 99 rupees per hectare to 370 in Andhra.

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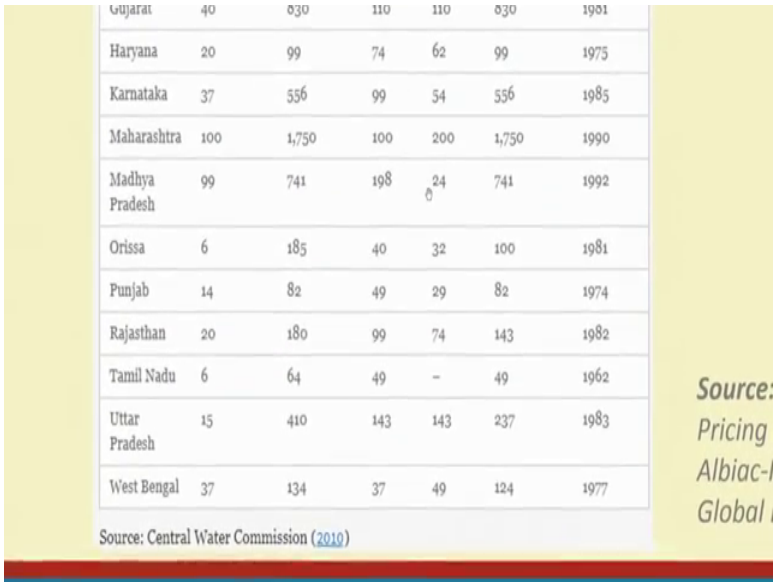

So, similarly in the different places, so you see, you can see values as low as 6 rupees per hectare in Odisha and Tamil Nadu, to values as high a 1750 rupees per hectare in the state of Maharashtra for sugarcane, that sort of values are there. So, this kind of water pricing are there for irrigation. Again these prices are also not very justified if you see.

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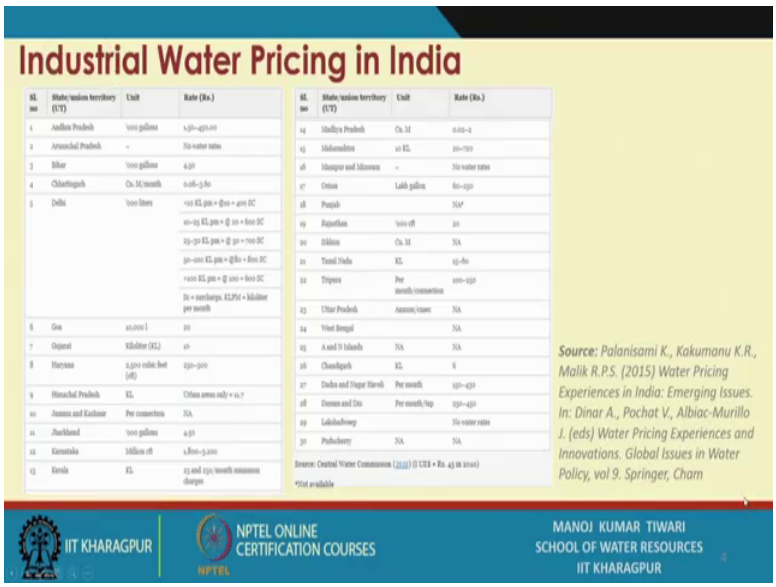

Many times the way these prices are decided also remains arbitrary. Then, there are industrial water pricing and if you see again a compilation from the same source about the industrial water pricing.

So, that also varies state wise, you can. So, if you see these values the industrial water pricing. So, in different states the rate changes from very low to very high. In on right is from 1.5 rupees to 450 rupees. Then in Delhi it is metered based on the consumption. Goa 20 rupees, Gujarat 10, so that sort of values are there in different states.

So, again a large degree of fluctuation you can observe in these rates as well. So, the prices, pricing of the water in industrial sector as well as agriculture sector are also not truly based on the cost recovery aspect or those sort of sense. Many times these are, in fact charged at a higher rate at few places due to the cross subsidies which we will be discussing in the next session. So, point is that the overall pricing of water in whether it is in urban sector, agricultural sector or industrial sector is not based on this sound scientific principles and that needs to the various issues in the water management and it seeks for a reform.

So, what I am going to read is basically a statement by our current honorable vice president of India M. Venkaiah Naidu.

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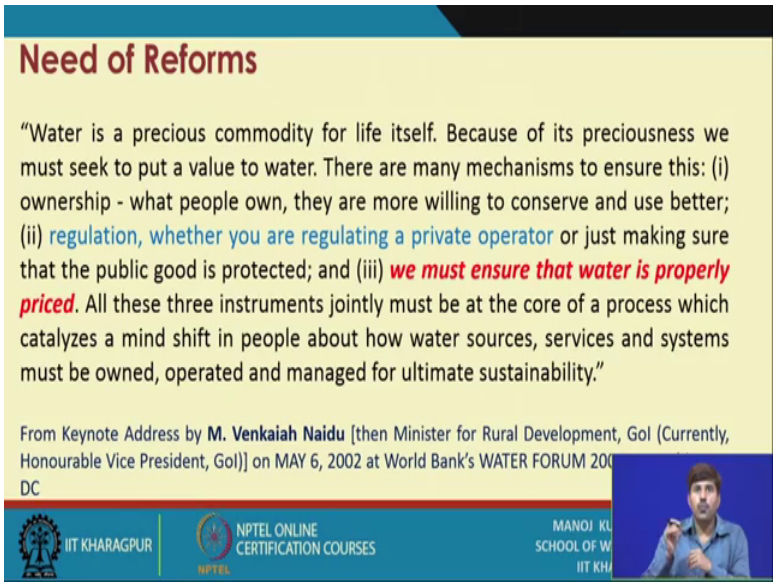

This is taken from a keynote address given at the World Bank's water forum in the Washington DC in 2002, when he was heading the ministry of rural development for government of India. So, what he says that water is a precious commodity for life itself because of its preciousness we must seek to put a value to water. There are many mechanisms to ensure this, the ownership that people own they are more willing to

conserve and use better. Then, through regulation whether you are regulating a private sector or just making sure that public good is protected.

And the third one that was said was we must ensure that water is properly priced. So, all these 3 instruments jointly must be at the core of a process which catalyze a mind shift in people about how water sources, services and system must be owned, operated, managed for ultimate sustainability. So, for an ultimate sustainability it is very important to properly price the water and for that since as we were discussing that the scenarios are not very attractive in India.

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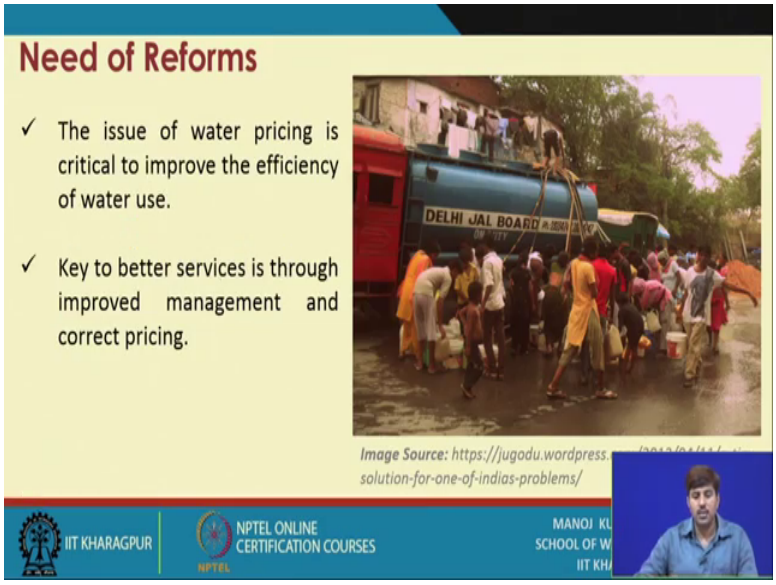

It is in fact, in an alarming stage. So, proper reforms are needed. The reforms are needed because the issue of water pricing is critical to improve the efficiency of water use and it is a key to improve the services to better the services through the management and correct pricing strategies. So, that is the key idea or key need for the reforms.

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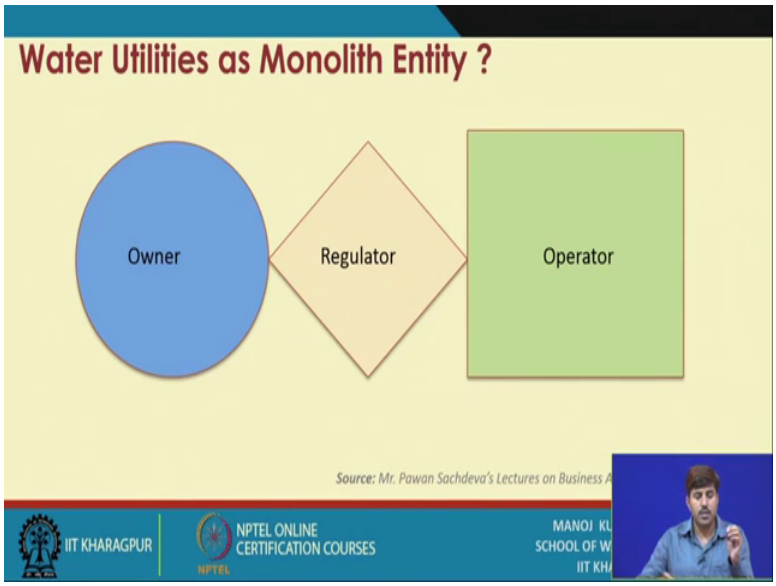

Now, if you see in India again we will basically put more focus on to the urban water sector because that is where the issues are much more alarming. Although, the consumption is higher in the agricultural sector, so water utilities typically operate as a monolith entity. Now, what does that mean? That means, the owner, regulator and operator of the entity are the same agency or the same person generates its government bodies. So, for example, for a town, its municipality who owns the water services, its municipality who operates the water services and it is generally municipality who regulates the water services as well.

So, when the owner, regulator and operator are the same entity or are the same organization, it becomes very difficult to intervene or implement anything because it is kind of becomes a monopoly of a company. Now, that monopoly could be derived from for any could be derived from any sources or any reasons. It is not necessarily that if it has monopoly, so it is going to charge exuberantly. That is not the case because it is generally all these bodies are government owned and politician have a huge control on that.

So, ultimately it all goes on to the opinion of the ruling political party. So, the sound financial constraints goes away, the engineering concepts goes away, the requirement goes away, the sole criteria becomes at times the political gain or at times the social

benefits. So, how these entities operate is not making the water business sustainable that what has been observed.

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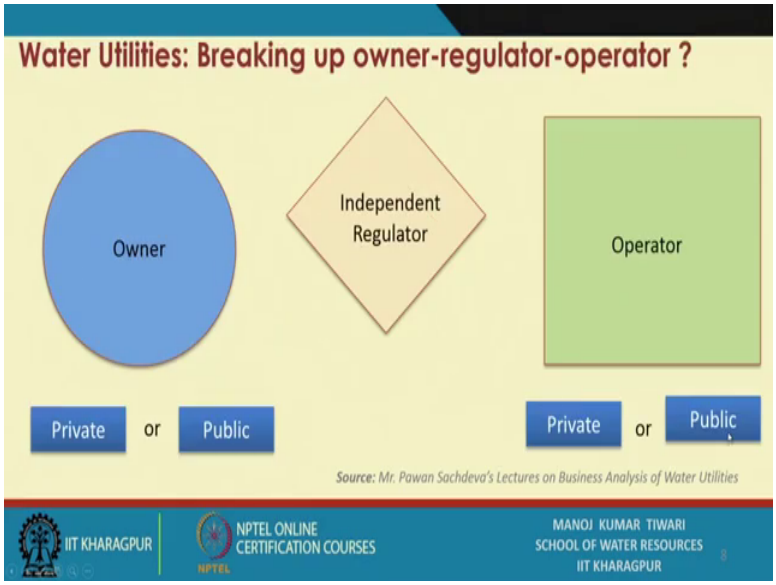

Now, what if this connection is broken up? So, if we break up the owner, regulator and operator into the separate entities. So, we have owner which could be a public or private company, we have a operator which could again be a public or private organization and then we have an independent regulator. Now, the role of independent regulator becomes very important here because owner has a responsibility, owner is sort of a owning the system. Operator has a responsibility to operate the system.

But the key policy decisions either taken by owner or operator is to be regulated in connection to ensure the social benefits, the sustainable outputs and probably the financial constraints as well. So, the independent regulator may be, may proven to be very critical in such a scenario.

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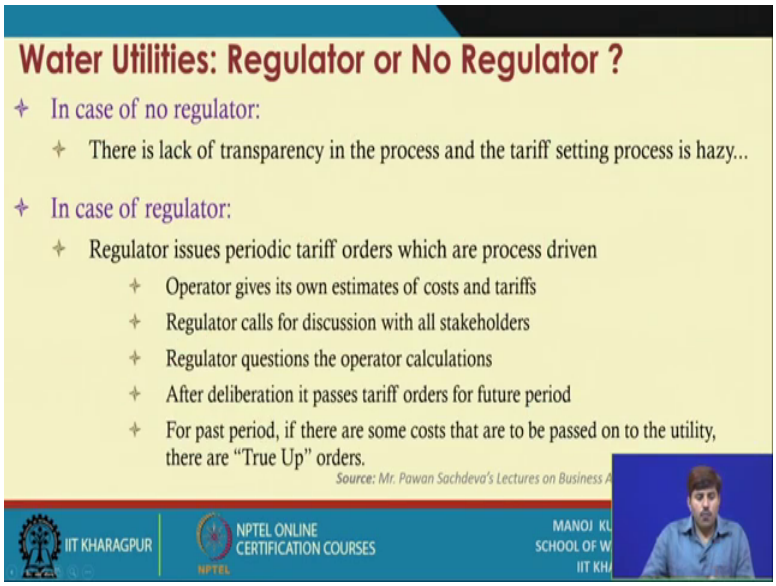

Now, if there is a regulator or no regulator what happens? So, in case if there is no regulator there is a lack of transparency in the process and the tariff setting, overall tariff setting process is actually turns easy. No one controls that as we were discussing that it if it is a monolith entity, everybody is same there is no independent regulator. So, nobody is going to regulate prices and whoever is the key person or the responsible person at the head as a head of the entity with will take the decision about the pricing water.

So, if he says that lets put a 200 rupees per month it becomes 200 rupees per month. If he says let us keep it at 50 rupees per month it becomes 50 rupees per month. So, it just gets derived from the opinion of ideology, maybe political ideology which does not have very relevant social and economic structures. As opposed to that if there is a regulator, then the regulator issues, periodic tariff orders which are particular process driven.

Now, this is regulated when we are saying regulator it is not necessarily that regulator is a individual or regulator is a one person. Regulator is generally a institution or organization. So, they also have those sort of responsibilities lying up with them. Since, they are independent regulator, so they can have an overlook of the system in a independently. They then have an idea of owner, they will have an idea of operator if it is separate, if owner and operator are separate. They will have an idea of all other stakeholders including the civil society including the customers.

And the independent regulator is supposed to consider all these and then operate within like its own cost and tariff estimates based on the inputs received from the different stakeholders. So, he need to basically discuss with all the stakeholders. He need to, he as in I am not saying for an operator. So, the agency or the regulator needs to discuss with all the stakeholders in including from the owner to the customer level.

And eventually then comes up with the analysis of our estimates of the suitable cost going on to the operator or going on to the owner and what could be the justified tariff keeping in all other view. Otherwise what happens if it is leave it is left to a political party, they have their own political motivations in order to that becomes the driving force for setting the tariff. If it is completely left on to the private party.

If let us say your owner or your primary, if your regulator is absent, then the operator which could be a private party as well. So, what if operator fixes prices looking at his own business interest and the prices may not actually be affordable or may not follow through the criteria of affordability for low income groups. So, regulator has his opinion has his backing up has his information about seeing all the cross, all the aspects of tariff setting including the affordability criteria as well.

So, after all this deliberation it sort of passes tariff orders for future period and for past period, if there are some costs that are to be pressed on to the utility then there are true up orders as well. So, like if utilities let us say running in loss from previous financial years or previous financial quarters. So, they can put their case in front of the regulator that this has been the scale of losses in order to like economic sustainability we should recover these as well.

So, then if regulator sees it viable, if he sees it that yes it could be made as a justified case, he can actually put through the process and allow the operator or the owner to set a tariff which includes these true up order values as well. So, the additional cost values as well. So, that is how it can actually include the.

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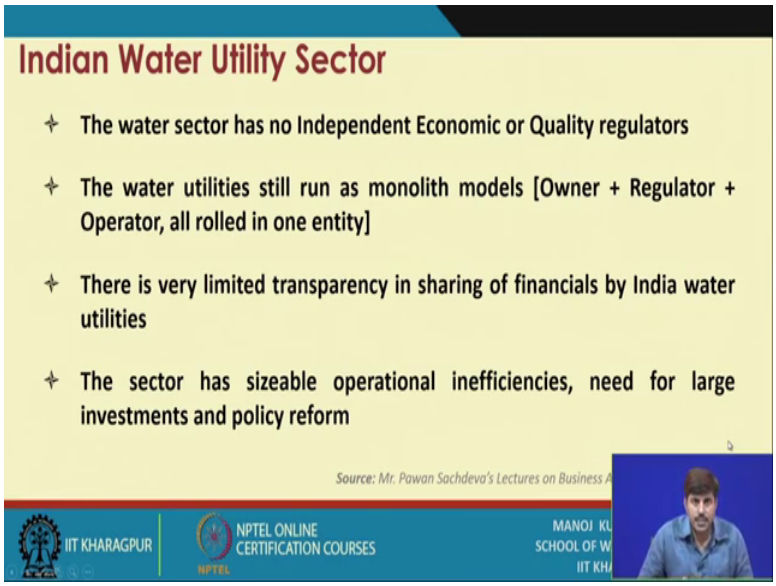

It can, that is how it cumulately can operate this system in a better sustainable way. If you look at the Indian water utility sector, the water sector has no independent economic or quality regulators generally as we have been discussing earlier also. The water utility is still run as a monolith model. So, owner and regulator and operator are all rolled into one entity. There is very limited transparency in sharing of financials by India's water utilities and this sector has a sizable operational inefficiency and needs large investment and large scale policy reforms as well. So, that is the scale of reforms needed in Indian urban water utility sector.

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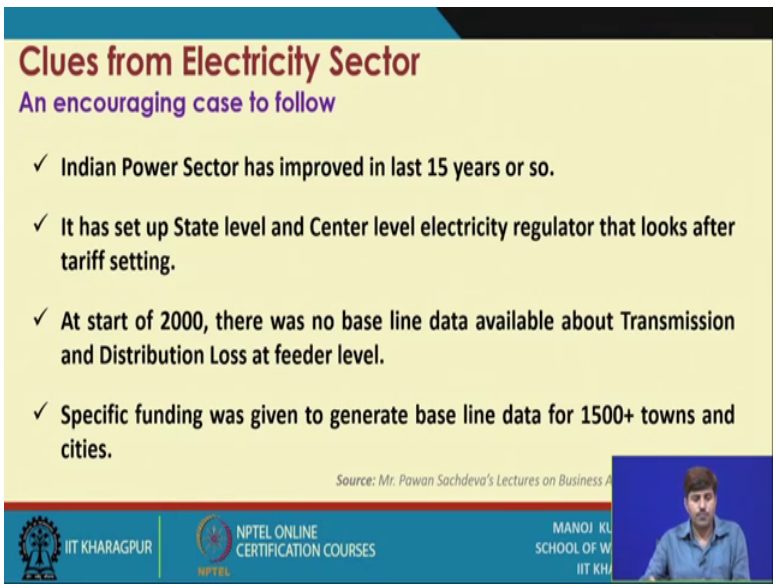

Now, it is interesting to see that the water sector can look at a power sector as a encouraging case to follow and can take the clues from the electricity sector or the Indian power sector, how it has improved in last 15 years or so from a very pathetic state which was earlier. So, we know that there was huge transmission losses, there was huge inefficiencies in power monitoring, there was huge metering in accuracies, there was huge power theft. So, all these things were very much prevalent if you just look at 10, 15 years back in the power sector as well.

Now, So Indian power sector when they decided to undergo reforms in the 90sor in late 90s rather. So, it has set up the state level and center level electricity regulator that looks after the tariff setting. So, independent regulator has been set up for looking up at the tariff setting. At the beginning of 2000, there was no baseline data available about transmission and distribution losses at feeder level, now the cases were alarming.

So, specific funding was given to generate the baseline data for more than 1500 towns and cities in India. Now, that funding was utilized, the data was generated.

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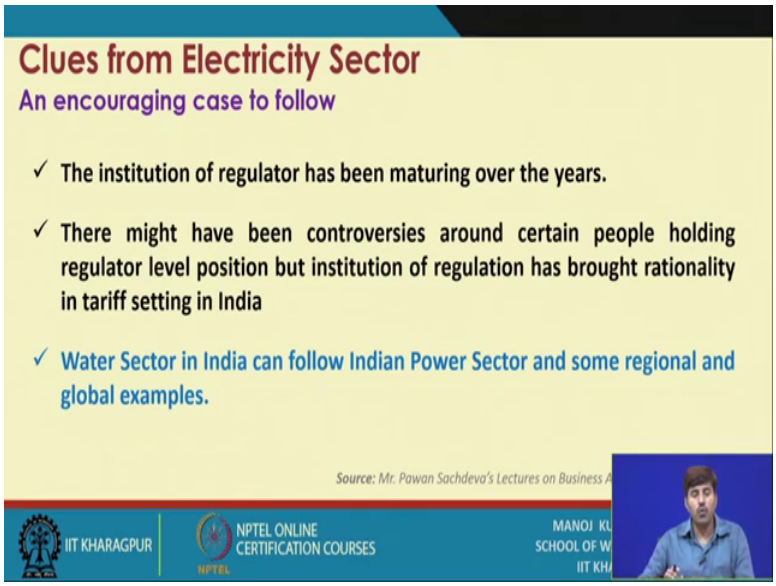

And taking clue from that data, the institution of regulator was also installed and it has since then being maturing over the over and over the years. There might have been controversies around certain people holding regulator level position, but institution of regulator has bought a good level of rationality in tariff setting in the power sector.

So, taking clue from the power sector, the water sector in India can also follow the power sector and some regional and other global examples where we can take clues from Singapore or p u b or many other, in fact Asian countries also; so Kuala Lumpur, although they have matured over in there over the years in their water management. So, how a independent regulator is needed in order to set the tariffs and how the independent regulator is also responsible for keeping an eyes over the operation of water utility whether they are not overcharging for the profit interest at the same time takes care of the basic social needs of the low income group people.

So, that sort of regulation, that sort of supervision could improve the Indian water sector also. The problems are of very enormous scale. There is no data because once you go on to setting up a tariff or making something in a financial financially sustainable and viable, one needs large amount of data. So, getting all those data is very important. Then once the data is there, independent regulator can play a role in order to analyze the data, in order to work out that data, in order to set these sustainable tariff structures which takes care of both the society as well as the utility itself.

Because utility also needs revenue in order to better its operation and that is why the aspect or the consideration of the utilities or the financial need of the utilities is also to be taken is also needs to be taken care of and then only a system could run in a sustainable way. So, we will end this session here and we will talk about the, we will talk about the various aspects of conflict managements in water pricing in the next session.

Thank you.