## Water Economics and Governance Prof. Manoj Kumar Tiwari School of Water Resources Indian Institution Technology, Kharagpur

## Lecture - 43 Water Governance

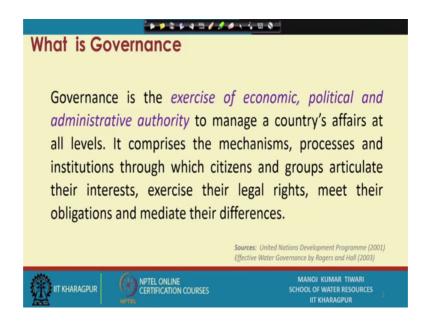
Hi everyone we are into the 9th week of this course Water Economics and Governance and, this week we will be talking about the Governance Aspect of Water Management. Earlier we have talked about the basic human rights to water sustainability aspect, then how we give a economic value to the water, how the water pricing is done, what are the various pricing mechanism pricing models and then, how the larger water projects are evaluated based on definition evaluations, or capital budgeting techniques.

So, that is one aspects where basically the economic, or monetary terms are the guiding principle for decision making, but decision making in water sector is not just limited to the monetary principles, we have discussed this earlier also while talking about the concepts of sustainability, concepts of right to water and sanitation. So, all this because we earlier discussed that every residents, or every citizen of a country, or a state is liable to get the good quality and sufficient quantity of usable water for meeting his basic needs under right to water at of course, affordable cost.

Then we did discuss that when we are discussing the sustainability concepts, we did talk about that sustainability is not only in terms of engineering sustainability, or financial sustainability it also involves the environmental or ecological aspects. So, environmental sustainability insures that the resources are to be preserved for future generations so; that means, due emphasis is to be given to the due emphasis is to be given to the resource protection, to social needs means human right to water. So, ecological need social need, then there are financial aspects all this we discussed in bits and pieces. Now when we come on to the execution of the policies or framing the policies, there all these different aspect the engineering aspect the social aspect the environmental, aspect the financial aspect are need to be integrated and, the water in general or overall to be governed for the social needs, or for the ah need of the human development human progress or human growth in keeping all these different aspects in mind.

So, we will be discussing about some of the governance basic, in this lecture and then progressively we will talk about how good governance should be integrated, should be integrating different aspects, in order to meet the environmental ecological financial and social requirements.

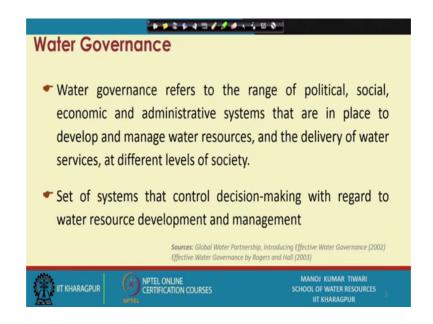
(Refer Slide Time: 04:05)



So, first let us talk about the governance, as per united nation development programme the governance is the exercise of economic political and administrative authority. In any particular field we are not talking about, we are not talking just about water here, but in we can have the governor the governance can be in the financial term, the governance can be for any resources, but eventually what governance essentially means is exercising economic political and administrative authority to manage the country's, or a state, or a cities day to day offer, or long term affair at all levels.

So, it comprises the mechanism the process the institutions through which citizens and group, articulate their interest express, their legal rights, meet their obligations and mediate their differences. That is what governance mean? So, a governance will have multi level objective, multilevel multi slabs for different type of interaction different type of objectives, where the different group can express can show their interest can tell their needs, can exercise their legal rights, can meet their obligations and, if there are any differences or disputes, it there has to be a platform provided for mediating those differences. So, that is what comes under the governance.

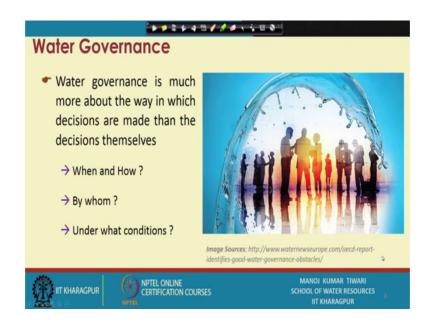
(Refer Slide Time: 05:54)



Now, when we specifically talk about water governance so, water governance refers to the range of political social, economic and administrative systems that are in place to develop and manage water resources. So, when we are just talking about governance, it is in general governance could be of anything, governance could be of and governance could be of any of the natural resources be it, governance of water, governance of minerals coals. So, all that will come in general, but when we specifically talk about water governance so; that means, we are basically referring that the political social economic and administrative system, that controls, that manages, that oversees, the development and development of water resources and the delivery of water services at all different levels of society.

Now, there has to be a set of system that control the decision making, with regards to the water resources development and management and, that is what is covered under the water governance.

(Refer Slide Time: 07:08)



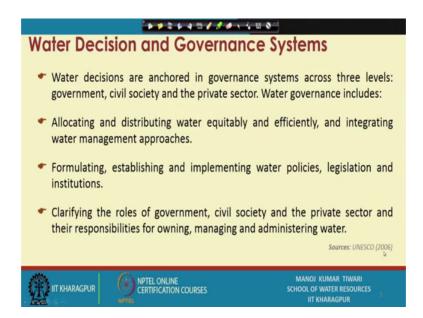
So, water governance is not specifically about the laws and policies, or decisions that are being made, it is much more about how and in what particular what specific way, these decisions are being made. So, who is making these decisions, these decisions are made, by whom these decisions are made, when in what circumstances under what conditions and under which set of norms, or how these decisions are being made. It is more about the way in which these decisions are made, rather than actual decisions which are being made ok. So, for example, let us say a city is having a water resource available to it and, there are different sectorial demands, there is demand from agricultural, demand from industrial sector, demand there is demand from domestic sector.

So, how to distribute the available resources in different sectors, let us say this decision is to be made. So, instead of like the final decision that ok, let us give a for say 60 percent water to the domestic sector, then another fort another 30 percent to the agriculture sector, or balance 10 percent water that can be distributed to the industrial sector this would be a decision. So, the governance is not limited to this decision, the governance is limited that overall how these requirement, how these specific demand, were communicated to certain set of people, certain set of organisations, or agencies let us say its jurisdiction of municipality. So, the governance or the policy is that whosoever is having a demand from which so, ever sector communicates their demands to a to a regulatory or governing body.

Now, this governing body has a way to make a decision to come to a decision, the decisions generally are not arbitrary, it is not that these three people came and tell I need this I need this much, I need this much and the person, or organisation decides granted this much you granted 40 percent, you are granted 10 percent, it is not like that, there has to be a set policy ok. If let us say it is kind of variable demands arises under limited resource cases, how the distribution to be take place there has to be a formation of committee, or there is a let us say standing committee, the matter will be referred to that there will be different people with different expertise in the those community, there will be deliberations, there will be assessment of the requirement, then there will be final decision, then there will be opportunity to challenge those decisions.

So, instead of the final decision, the governance essentially means how these different processes were followed ok, how what is the body to which the demands is to be communicated, how this after getting the demand what framework, or what approach is be adopted to deliberations on those demand, who makes the decision if is there is a committee of how many people with what backgrounds, then what are the further scope for negotiations, what are the further scope for having judiciary involvement in case of any disputes. So, all those processes all those various steps are actually defines the governance different steps and different stages of governance, for this particular case, and not the final decision rather ok. Final decision could also be one of the aspect, but not the only or not the major aspect of the governance.

(Refer Slide Time: 11:38)



Now, water decision are anchored in governance systems across 3 levels, there is government, there is civil society and, there is a private sector. It is not necessary that all 3 are involved that, again this could be the possible three sectors, but which state, or which government, or which governance structure is very efficient and involving all 3 different levels will sort of depend on case to case basis, but there is a possibility and there is actually. In fact, in all likely would these three levels should be involved in decision making, the government the civil society and the private sector.

So, along with all these the governance will include, that allocating and distributing water equitably and efficiently and integrating water management approaches. So, how the water allocation and distribution can be done in a equitable and efficient fashion ok, considering the requirements from the different sector, considering the availability of the resources, considering the environmental and ecological sustainability aspects, then there are formulating and establishing implementing water policies legislation and institutions, that is the another major objective or aspect of governance.

So, under water governance the different set of water policies are formulated established and implemented, they are bought in to the legislation, there are institutions that are set up for overseeing these implementation and establishment of these policies in the field and, then there are ah clarifying the role of government civil society and the private sector and, their responsibilities for owning managing and administrating water. So, under the governance structure, the specific role of government role of civil society, if any and role of private sector, their roles their responsibilities, their authorities, power are all to be explicitly mentioned explicitly made clear under a governance system. So, who owns the system, who manages the system, who administered the water how the disputes, or are managed if such and if such dispute arises. So, all these aspects should be dealt under a governance system.

(Refer Slide Time: 15:05)



Now, why we need effective water governance because, water is there we have been using water since ages, there are there are requirement of water being fulfilled by our natural resources, for so long period of time, but as particularly with more and more of urbanization the requirement of water are being more and more concentrated at one particular place, there are issues related to the availability, then there are issues related to the quality of water, they are issues related to the waste water, management, or pollution of the natural resources through waste water there are issues related to the sectorial distribution, or because water is not uniformly distributed. So, these issues emphasizes the need of effective water governance.

Why we need effective water governance is primarily because, there is increasing demand. So, when there is less of demand and more of resource nobody bothers to manage much ok, one if ample resources are available you go consume whatsoever you want nobody bothers, but if resources are limited that is the second point limited resources.

So, if resources are limited and demand is increasing and, if there is a imbalance between the availability of fresh water and, demand of freshwater, then there has to be a management practice, or a governance practice to be adopted, which distribute this waters in fair and equitable manner. In case of resources scarcity in case of limited resources particularly and, when there is more demand arising, then there are unequal distribution ok.

So, as if you see the examples across the world there are European countries which are very rich in the water resources, then there are African countries which are extremely deprived of fresh water resources ok. Just last month if you are aware there has been cases, or there has been basically lot of news coming out for the cape town in south Africa, that the freshwater has almost exhausted their resource are only can sustain till the April 2018. So, they are on the verge of basically depleting all their water resources ok.

So, at one place as I give the example that in the most of the African continent, there is a huge scarcity of water. While European, most of the European countries are pretty rich in the water resources. So, there is unequal distribution it is not only the nest international or the continental scales, it is actually within the country also within the state also ok, you see in India eastern part or to some extent northern part are relatively better while central part, if you see the Rajasthan Maharashtra they are large there are large degree of water crisis keeps on appearing frequently every now and then ok. We see couple of years back what was the condition in the Latur of Maharashtra.

So, there is unequal distribution which again says that because, under fair circumstances every citizen should have the equal rights on to the available resources; however, because of unequal distribution of water at some places, there is scarcity of water while at other places there is abundance of water. So, if a good water governance or water management practice is adopted, if water is governed in a proper way water is managed in a better way, these gap could be minimised could be reduced.

Then there is a sectorial access to water. So, as we were saying that the demand for water arises from different sectors and, when we have fixed or limited amount of resources and all of the demand cannot be met, then we have to prioritise sectors which sector to be prioritised whether we are going to proli. Let the industries proli proliferate we supply water to the industries for the industrial growth and, our agriculture suffers, or we supply for irrigation and let our industries suffer not by not getting adequate quantity of water, how to manage the demand from the municipal sector, when there is a limited resource available, or in order to let us say meet the complete demand from municipal sector

because, this demands also can be varied ok. Again by the governance practices, let us a we couple of weeks ago we were discussing the water pricing aspect.

So, for say the pricing sends a signal in controlling the demand, we discussed this earlier. So, what is water pricing water pricing is a tool, or is a way of governing the water resources, it is a basically making a policy, whether water how to price water and water is to be priced, or not priced at first, then if it is to be priced at what rate it is priced whether we are going to price water for a marginal cost, or average cost ok, or whether to subsidize water or not to subsidize water. So, these all policy decision falls under the scope of governance the water is being governed. So, these kind of decisions are being made and they eventually end up, they eventually end up controlling the demand aspect also controlling the peoples behaviour also.

So, there is a integrated aspect to all these and so, for example, we were discussing. So, if you are having let us say high demand from municipal sector whether, we can adopt some governance principle to reduce that demand from the municipal sector and. let that water go to industries for the industrial and economic growth or, let that water go to the agriculture for food production purpose for ensuring food sustainability. So, these also needs or calls for a good governance practices when there is a sectoral crisis on to the sectoral access of water.

There is a need of accountability and transparency because, when water is distributed or managed in a non transparent manner, or non accountable manner, nobody knows nobody can question the decision when people do not know, it is very difficult for them to raise their voices put through the questions, that why this water is being given to here and there. So, this what actually has been happening in our country for over a large period of time there was no as such accountability and, there was not transfer there was no transparency at all in the decision making, in that cases the involvement as we were discussing that there are 3 there are 3 stages, or 3 levels of involvement needed in water governance, the governing the government the civil society and the private sector.

If there is no transparency the civil society involvement is automatically reduced, or minimised because people are not aware with how much water is there are how these decisions are being made, who whosoever is getting what amount of water. So, when they are not aware that much they do not bother to sort of participate in the decision making and management processes. Then again if there is no accountability even the government or private sector also does not have that much of involvement or interest in managing the services because, if I am not accountable to something I will not bother much ok. So, that need of accountability and transparency has to be there and, that is essential component that is that is one basic requirement for the effective water governance.

Then there are water rights. So, we discussed this earlier that as per right to water everybody should get this sufficient and safe quantity of water, safe quality of water. So, in order to meet the water rights, in order to honour the water rights, we need effective water governance principle because, we need to take care of the quality, we need to take care of the sufficient quantity of water, we need to take care of the affordability of water. So, all these needs a lot of policy making lot of decision making as we discussed earlier and, that is why there is a need of effective water governance under this as well.

Then there are increasing population concerns. So, since the population is increasing actually this point is more or less linked to the increasing demand. So, if there is increase in the population there will be increase in the demand ok, there will be issues related to the sectoral access of water as well. So, then in such circumstances again when the demand is arising due to the increasing population, or the different level of this thing. So, there is linkage to the water rights also more people are there, with different classes, different economic background so, fulfilling their water rights. So, actually the population increase is one of the very basic causes for the water mismanagement, or for the limitation of fresh water services to all to every citizen. So, this also again calls for a effective water governance policies, and then the last one, but one of the very important one is the disputes.

So, when there is a dispute related to the water it needs to be resolved through a set of policy mechanism and tat for that we need some set governance mechanism, or po policy making decision making mechanism, which can help in resolution of the disputes ok, very recently there that has been a ruling came from the supreme court about the Kaveri disputes ok, where are the Karnataka has got more water and the water allocation for Tamil Nadu was reduced by the supreme court.

So, you see this Kaveri disputes was running for over a large period of time there was tribunal, then it moved to the judiciary pro processes. Now there was a set mechanism for handling these disputes ok, whatsoever decision we will not talk about the decision, but when there is a dispute arises that who has first right to water or how much right onto the water of the river Kaveri, which state has it was not resolved mutually, then there is a disputed arises it went to the tribunal.

So, for resolving this disputes the cons the sort of making a tribunal to hearing to hear this case, then sort of tribunal looking after the various aspects having different sort of expertise involved in the tribunal, then making suggestion, or giving a decision about the water allocation that is a that is a step in the governance, this further going to the judiciary because, the parties does not parties if parties does not accept decision it will go to the judiciary, then there is a mechanism for hearing in the judiciary and, then decision making from them which will be abiding for all the parties.

so this is a set governance principle and for this kind of dispute we need such mechanism to resolve, otherwise if we do not have a good governance practice, if we do not have a good dispute resolution mechanism, how these cases are going to be handled, we cannot leave the people of two state to fight it out, that who has water or how much water one state of Karnataka cannot completely stop water going in for completely stop water, or completely utilise the water of Kaveri and does not leave anything for the Tamil Nadu. Similarly Tamil Nadu cannot have all the water saying that Karnataka cannot use any water.

So, if there is a set governance mechanism governance principal this disputes can be managed or can be resolved to even if it is not to the satisfaction of the different parties, it is by law abiding to the all parties and; however, in absence of such governance mechanism or such policy frameworks, it would be very difficult to deal in these cases. So, that is one of the prime reason that we need effective water governance mechanism.

So, we will end this session here and continue further discussion on to the principles of water governance and elements of water governance in the next station.

Thank you.