

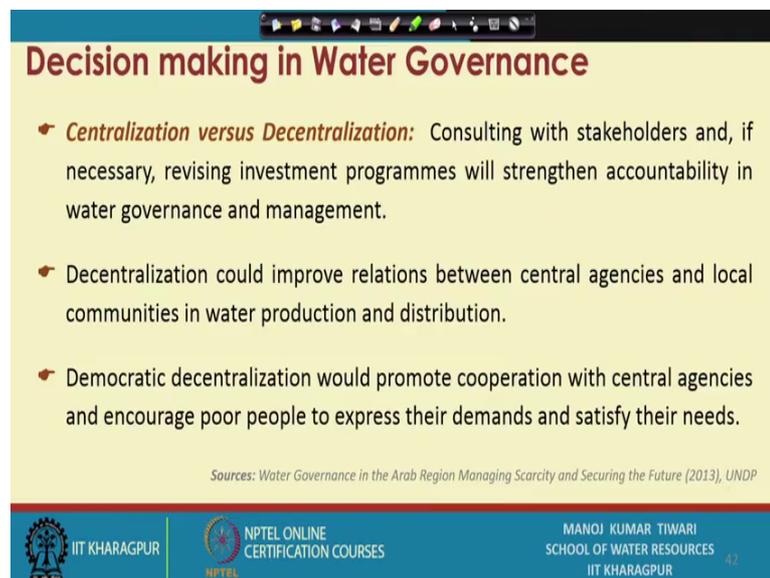
Water Economics and Governance
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Lecture – 48

Decision Making and Implementation in Water Governance and its Benchmarking

Hi, everyone. So, we are in the last session for this week and we will be concluding our discussion onto the various aspects of water governance we where, we are going to see today, the decision making, the implementation, the indicators of good governance and benchmarking of the water governance.

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Decision making in Water Governance

- ☛ **Centralization versus Decentralization:** Consulting with stakeholders and, if necessary, revising investment programmes will strengthen accountability in water governance and management.
- ☛ Decentralization could improve relations between central agencies and local communities in water production and distribution.
- ☛ Democratic decentralization would promote cooperation with central agencies and encourage poor people to express their demands and satisfy their needs.

Sources: Water Governance in the Arab Region Managing Scarcity and Securing the Future (2013), UNDP

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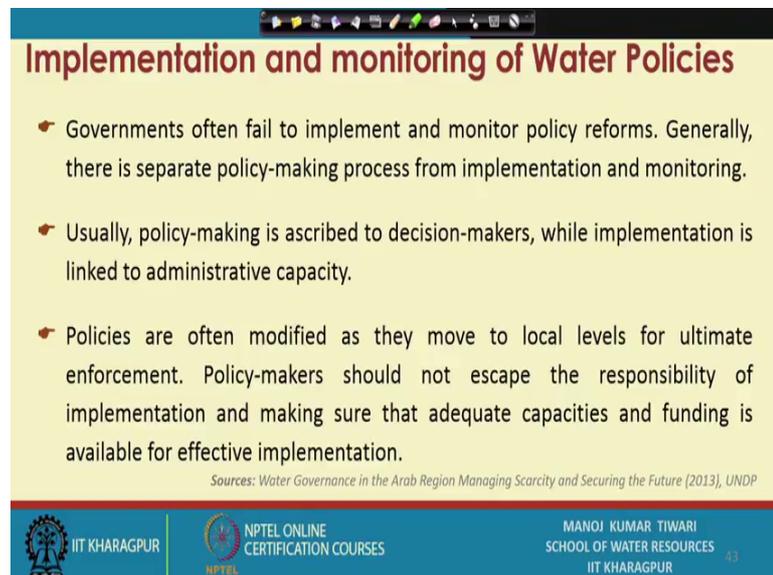
So, to start with the decision making in water governance one of the important aspect comes whether centralized or decentralized. So, as we were discussing in the previous session, the decision could be made on a centralized scale as well and on a decentralized scale as well ok. However, there ideally there has to be consulting with the different stakeholders and if necessary revising investment programs to strengthen the accountability in water governance and management. Decentralized decision making often is considered better because it can improve relations between central agencies and local communities in water production and distribution.

If everything is being decided from the central stage only implementation like many times the centralized policymaking people does not think about the implementation

aspect. I am sitting in a chair in Delhi office I would not bother much about whether the policies that I am suggesting are actually implementable on the field or not, because in centralized system many times the people making the decision may not be well truly aware with the basic field conditions and the implement ability of the solutions being suggested.

So, democratic decentralization that way would promote the cooperation between the central agency and encourage poor people to express their demand for getting their needs fulfilled.

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Implementation and monitoring of Water Policies

- Governments often fail to implement and monitor policy reforms. Generally, there is separate policy-making process from implementation and monitoring.
- Usually, policy-making is ascribed to decision-makers, while implementation is linked to administrative capacity.
- Policies are often modified as they move to local levels for ultimate enforcement. Policy-makers should not escape the responsibility of implementation and making sure that adequate capacities and funding is available for effective implementation.

Sources: Water Governance in the Arab Region Managing Scarcity and Securing the Future (2013), UNDP

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The another question comes about the implementation and monitoring of water policy. So, the issue is that government many times failed to implement and monitor the policy reforms. The policy reform that are being made many times actually remain only in the files the implementation stage there is a failure and those failures government is not many times able to recognize that why these failures happen, how this failure happened and what amendments could be taken care to rectify these things. So, those are the very crucial points for the completion of any scheme any or getting outcome of the any water policy.

So, usually the policy making is ascribed to the decision maker while implementation is linked to the administrative capacity particularly, in the centralized decision making system. So, I am making the policy the one who makes policy rarely goes into the field

for implementation. The policy makers generally design the policies and then hand over to the next units or the unit in a lower hierarchy for the implementation of the plans or implementation of the policies what actually happens that when these policies reach to the field level or local level many times they are modified.

So, government has suggested something ok, but when it comes to the field level or the implementation level the people or the authorities who are responsible for implementation many times see that, ok, there is a difficulty in doing this or let us go for this alternate way. So, those policies those small modifications could be occurring at the lower levels ok, during the time of ultimate enforcement of the policy or ultimate implementation of these schemes. However, the policymaker should not escape from the responsibility of implementation and making sure that adequate capacities and funding is available for effective implementation.

So, if a policymaker is designing a policy if a policymaker is suggesting a policy he should think over that ok, for the policy that I am going to suggest how much implementable it is what is going to be the cost involved in the implementation, what is going to be the sort of infrastructure requirements for the implementation, what is going to be the manpower requirement for the implementation, whether the field conditions are suitable or not for implementation there are ample examples, ok.

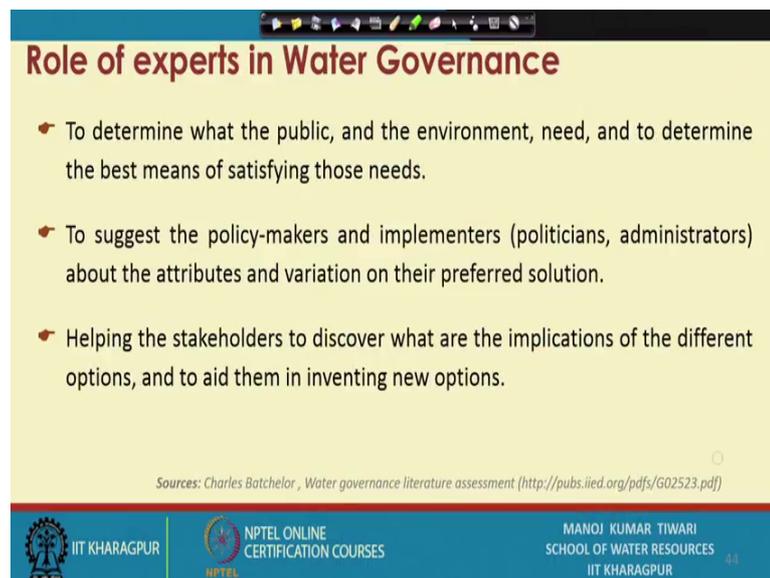
Now, take an example one suggest biological water treatment systems saying that they are generally perceived more sustainable as compared to the physico chemical treatment systems. So, as a policymaker I framed a policy, go the in is installed these biological systems in the entire state. Now, what happened that if policy maker is not well informed or well aware or have not considered the various local cases biological system installed in a open in a cold climate are very much susceptible to fail because in colder climates when the temperature in the night falls below let us say 3 degree 4 degree or those ranges so, the bacteria will almost stop working, ok.

Now, any such system installed include colder climates will be very susceptible to the temperatures and if policy maker is not giving due attention to this particular fact, ok. There are likely the there are high chances of occurring the failure at the field level.

So, policy maker should not run away from these things he should think about the implementation also the feasibility of the policy that is being suggested and how much

implementable it is in the field, whether there are adequate capacity is available in terms of the manpower, in terms of the resource availability, all those things and whether there is adequate funding is available or not for implementations, all these things should be carefully analyzed before suggesting policies.

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Role of experts in Water Governance

- To determine what the public, and the environment, need, and to determine the best means of satisfying those needs.
- To suggest the policy-makers and implementers (politicians, administrators) about the attributes and variation on their preferred solution.
- Helping the stakeholders to discover what are the implications of the different options, and to aid them in inventing new options.

Sources: Charles Batchelor, Water governance literature assessment (<http://pubs.iied.org/pdfs/G02523.pdf>)

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Now, what is the role of experts in water governance? You see the, first let us see who the expert is. The expert because water governance as we discussed earlier that water governance is not subject or a water government governance is not a specific subject for a particular stream or particular discipline it is a hugely interdisciplinary subject area there has to be like when we talk about the experts. So, water governance expert should know the engineering aspects, of the intervention should know the management aspects of the policy implementation, should know the economic aspects in order to figure out the economics of the project, then social aspects.

So, all these like the expertise when we say that expert in such and such field so, it is not necessarily that one people or one single person is expert in all these different domains. So, when we say that the expert in such and such field we should basically clearly a specify the expert in which expert in water financing, expert in water business, expert in water technologies, water treatment, waste water management, water resources management, river basin management so, expert in which particular field.

Now, once we have a set of experts so, what is their role? Their primary role is to determine whether the public and the environment need and the determine the best means of satisfying those needs. So, what is the need of the public and the environment and what is the best means to satisfy those needs. This kind of suggestions can come from the expert. The expert is the one who has supposedly greater understanding of the subject. That that is what we call expert, those kind of people we call expert.

So, expert is the one who has a greater understanding of the subject. Now, the one who has a greater understanding of the subject will be more suitably placed more better placed to analyze to determine that what is the best means of achieving targets. Now, those targets could be anything though if the target is a river basin management so, one should go for those kind of expert. If the target is a water utility surveys so, one should go for a public health engineer or public health expert. Their additional role is to suggest the policymaker and implementers. Implementers could be politician, administrator, the policymaker and implementers could be politician administrator whosoever it is.

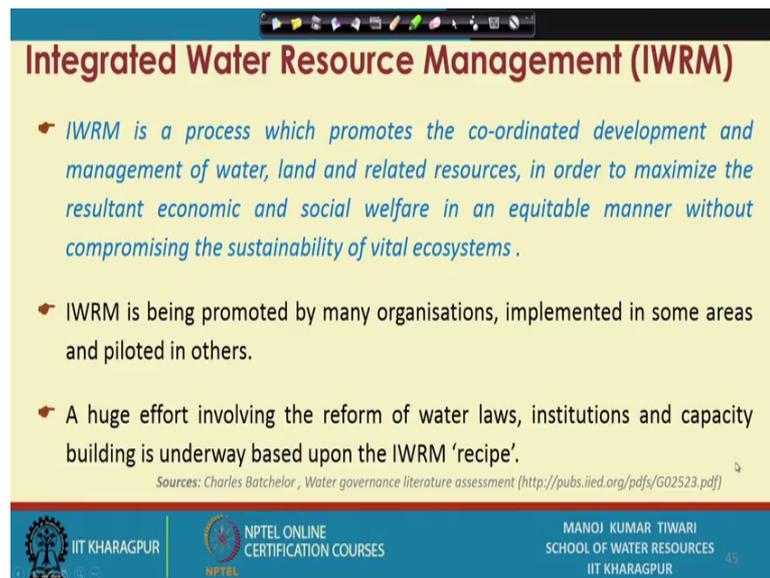
So, the experts should be available for lending its advice to the policymaker and implementers about the attributes and the variation of their preferred solutions. So, if the policymaker and implementers are saying that, this is the policy that I want to implement; the expert one of the role of expert is to basically give the scientific knowledge base advice to these policymaker and implementers about the various attributes of their preferred solution, ok. For example, if somebody says I want to fix up water prices at a marginal as at a long term marginal cost basis.

So, up experts would advise in such and such case what are the likely implications what is going to be the benefits of such policy what is going to be the demerits of such policy, whether such system will be affordable to poors or not, whether how much revenue recovery we can generate what are the alternate suggestions or some policymaker or a politician want to say that I want to supply water for free, up to this volume. A policymaker again a expert should guide him that these are the implications of supplying water for free. So, those kind of roles are there for policy makers.

Then there is a helping the stakeholders to discover what are the implications of the different options and to add them in inventing new options. So, the different stakeholders could have sort of different opinion about the options or about the problems. So, expert

should be able to guide these stakeholders to discover that what are the implications of the options that are being considered or that are being suggested and what are the alternate new options available, what are the new inventions are being done, what are the new options available, how much feasible are they for implementation purpose on the field. So, those kind of roles are there for experts.

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Integrated Water Resource Management (IWRM)

- *IWRM is a process which promotes the co-ordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems .*
- IWRM is being promoted by many organisations, implemented in some areas and piloted in others.
- A huge effort involving the reform of water laws, institutions and capacity building is underway based upon the IWRM 'recipe'.

Sources: Charles Batchelor , Water governance literature assessment (<http://pubs.iied.org/pdfs/G02523.pdf>)

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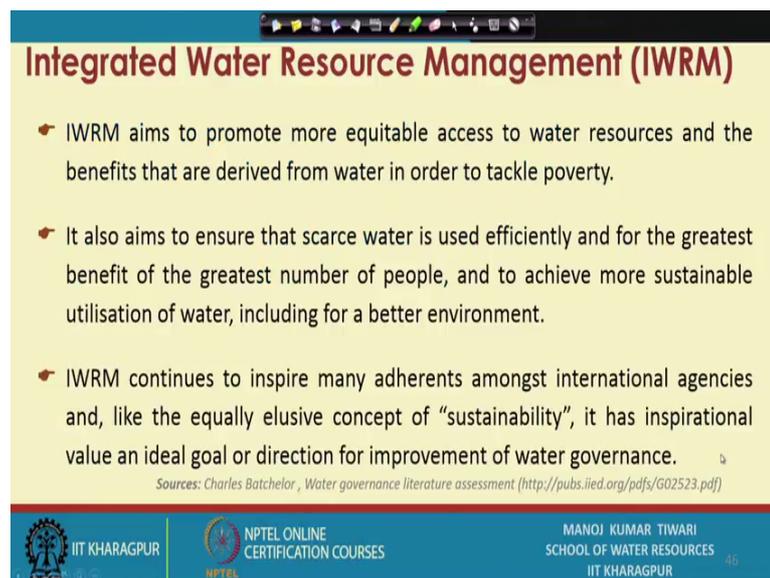
Now, there is term pretty frequently used these days is integrated water resources management, ok. So, as the name itself suggests we are talking about here water resources management in an integrated manner. So, integrated manner means integrating the different aspects. So, integrated water resources management is basically a process which promotes the coordination development and management of water, land and related resources in order to maximize resultant economic and social welfare and that too in a equal equitable manner without compromise the sustainability of vital ecosystems.

So, this is being promoted by many organizations if you see these days so, if you are exposed to the media or those type of the public platforms the integrated water resource management is the term which is very frequently fine these days, and it is being promoted by many organizations. However, the integrated water resource management is not an easy task, because it needs the holistic prospective incorporating each and every aspect related to the particular related to the water management or water services that needs to be clearly understood their interaction their implications on each other should be

properly devised these assessments should be made the adequate models are to be generated then only this implementation can take place.

Generally, people make some policies and say that we are we are doing integrated water resources management which actually may not be, because if it is not a holistic perspective if it not includes everything if it is not that if it is not properly designed including all the fine details it may not actually serve the intended purpose. it is being implemented in some areas in pilot scales or fuls full fledged implementation. There is a huge effort involving the reform of water laws institutions in capacity building is underway based on the integrated water resource management recipes so, as the integrated water resources management suggests that there has to be reforms in the water law institutions and the capacity building is needed so, accordingly things are being considered.

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Integrated Water Resource Management (IWRM)

- IWRM aims to promote more equitable access to water resources and the benefits that are derived from water in order to tackle poverty.
- It also aims to ensure that scarce water is used efficiently and for the greatest benefit of the greatest number of people, and to achieve more sustainable utilisation of water, including for a better environment.
- IWRM continues to inspire many adherents amongst international agencies and, like the equally elusive concept of “sustainability”, it has inspirational value an ideal goal or direction for improvement of water governance.

Sources: Charles Batchelor, Water governance literature assessment (<http://pubs.iied.org/pdfs/G02523.pdf>)

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This basically aims to promote more equitable access to water resources and benefits that are derived from what in order to tackle poverty, ok. So, that is one of the basic aims it further also aims to ensure that square water is used efficiently wherever there is a water scarcity. The water is used to the maximum social efficiency to be more precise and for greatest benefit of the greatest number of people that is what the most socially efficient system because we are talking about the highest level of benefit to the greatest number of people.

To achieve more sustainable utilization of water and including a better environment so, all the policy objectives all the like big large objectives are included. Ah, the integrated water resource management systems generally continues to inspire many adherents amongst international agencies, and like equally elusive concept of sustainability which has sort of inspired the value on an ideal goal or direction for the improvement of the overall water governance. However, it is not limited to just admirers. There are few people who oppose such policies as well, ok, on the account of the when we say that we are incorporating all the different aspects we are actually raising the complicity of the system.

And, the decision makings could be actually at times not considering the specific or particular need the special attain requirement of special attention for the poors and deprived because as large the scale we are making the lesser attention is going to be focused on the independent or individual units and in an integrated water resource management when we are seeing that there is we are considering all the different sectors are all the different sectoral demands, we are considering all the resource available in a much larger sense and the policies that target are much larger. So, the fine scale attention or the superior attention to some groups particularly the poor and deprived is often not paid, and that is one of the demerits on the account of which many people actually oppose these IWRM concepts.

However, on paper theoretically it says that you incorporate all the possible inputs you incorporate, all the step stakeholders you incorporate, all the pos knowledge about the management, all the expertise and then come up with the solution. So, ideally there is no harm on paper promoting the integrated water resource management system and for a sustainable or larger future this should be given due attention.

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Benchmarking Water Governance

- Water governance benchmarking can assess the state of water resources and the effectiveness of water policies or plans through performance indicators. These indicators can be formulated to measure and evaluate:
 - Modifications in legislation and regulations.
 - New, sustainable organizations and institutions.
 - Diagnosis of water bodies: pressure-impact analyses.
 - Cost recovery analyses by sector and/or river basin district.

Sources: *Water Governance in the Arab Region Managing Scarcity and Securing the Future* (2013), UNDP

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Now, the water governance when we are saying that there are different aspects of water governance, there are principles for good governance, there are set of systems different set of systems different set of policies, different set of approaches for water governance so, how do we benchmark such systems or how do we benchmark the water governance first. The benchmarking essentially means that how we can assess in comparison to any standard or any specific set target set objective and see where the governance system is standing.

So, water governance benchmarking can assess the state of water resources and effectiveness of water policies or plans through performance indicator. The benchmarking is generally done through several performance indicators these indicators can be formulated to measure and evaluate. So, there are there are certain things for which the performance indicators should be developed and these performance indicators can be compared across different water governance systems, and then we can benchmark the water governance systems that ok, this particular service or this particular system is doing good while the other one which is not faring at the desired fashion or at the desired manner needs more improvisation or further needs suitable interventions.

Now, the indicators for the benchmarking water governance could be many, we are not going to specifically pick and talk about the various indicators. Earlier, we discussed like for example, when we are talking about the benchmarking municipal water supplies, or

benchmarking water urban water utilities. So, there what is the total losses, what is the unaccounted for water, what is the what is the non revenue water ok, what are the other losses, what is the coverage area of the utility, how much they are covering ah, what is the affordability aspect what is the public satisfaction so, these could serve as an indicator and the different system could be compared based on these indicator. I have a utility at Jamshedpur which is having let us say 10 percent NRW, I have a utility at Nagpur which is having 12 percent NRW, I have a utility at Pune which is having 25 percent NRW. So, I can compare across different utilities I can benchmark that ok, the Pune utility is doing far worse as compared to the Jamshedpur utility or Nagpur utility. So, that kind of performance indicator are used.

Now, these indicators particularly for the governance purpose when we try benchmarking the governance. So, these indicators should be formulated to measure the various aspect. Now, what they need to measure is actually, they need to see these performance indicators need to see what are the modification in legislation and regulation, ok. So, how the modification in different legislation and regulations are being done what is the frequency of modifications, what is what is the adequacy of the modifications, what is the public satisfaction index with these modifications, so, these could be some of the indicators that way, ok.

How many new sustainable organizations and institutions are being added, ok? So, that could be one indicator. Then diagnosis of the water bodies through pressure impact analysis, ok. What is the pressure on the water bodies how they are behaving what is the impact of these things so, those kind of diagnosis of the water bodies could be done, diagnosis of a river would involve how it is quality is deteriorating how much flow is changing, what is the level of sediments how what is the main during aspects in the river so, those kind of things will come into the picture over here.

Then there would be indicators based on the cost recovery analysis of sector or river basin district, ok. So, as we were discussing earlier also that the cost recovery aspects are also of very high importance and how the water services or utilities are faring in terms of cost recovery.

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Benchmarking Water Governance

- Environmental objectives for watersheds.
- River basin and groundwater management plans.
- National water plans.
- New water pricing policies
- Involvement of local communities and stakeholders in decision-making.
- Dialogue forums between stakeholders.
- Coordination between water agencies.

Sources: Water Governance in the Arab Region Managing Scarcity and Securing the Future (2013), UNDP

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The other sectors for devising indicators for benchmarking water governance would be the environmental objective and what of for watershed. So, what are the environmental objective for watershed? Are these being fulfilled or not. So, for example, let us say the concept of e flow or environmental flow. So, the river should have a minimum amount of sustainable flow in it which is normally referred as environmental flow although this is a very broad definition ok, but still grossly we can consider the minimum sustainable flow in the river is referred as e flow or environmental flow. So, those kind of what is the e flow, how much closely for what fraction of the year the river is meeting the e flow so, those kind of indicators could be chosen.

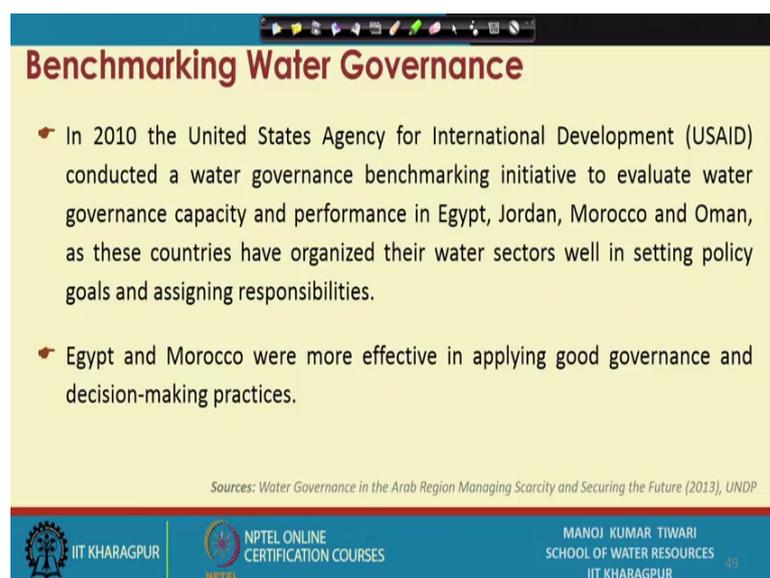
There is a possibility of river basin groundwater management plan. So, how are those plans being devised or implemented, if there is artificial recharge happening or not happening what is the quantity of artificial recharge, what is the how the water level fluctuations are there, all those things. What are the national water plans, then new water pricing policies how frequently it is being devised, how sustainable it is, how acceptable it is to public ok, whether we are still sticking to old school philosophies or the newer and more water saving encouraging pricing policies are being adopted or not. So, those kind of indicators could be developed for assessing the these policies then the involvement of local communities and stakeholders and decision making.

So, how much stakeholders environment is being ensured ok, what are their in level of involvement, whether they are involved in a decision making stage or just complaint racing or just informing like information providers. So, at what level they are involved, how many stakeholders, how many local communities are involved, how many let us say number of outreach programs are being conducted, number of awareness program are being conducted about the water services about the water policies ok. So, those kind of things would fall under this.

Then, dialog forums between stakeholders as you are just referring that how many outreach program. So, what are the various dialog forums between stakeholders ok, how much opportunity is provided to stakeholders to interact and discuss with the policymakers, and what way it is whether the policy maker reached the end users or the end user have to reach the policy makers. So, all those things and what are the coordination between various water agencies. So, how the different water agencies are coordinating also needs to be assessed.

These are the some of the objectives for which the policy indicator for which the indicators could be devised and those indicators could eventually be used to compare across different systems for the benchmarking the governance process, ok.

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Benchmarking Water Governance

- In 2010 the United States Agency for International Development (USAID) conducted a water governance benchmarking initiative to evaluate water governance capacity and performance in Egypt, Jordan, Morocco and Oman, as these countries have organized their water sectors well in setting policy goals and assigning responsibilities.
- Egypt and Morocco were more effective in applying good governance and decision-making practices.

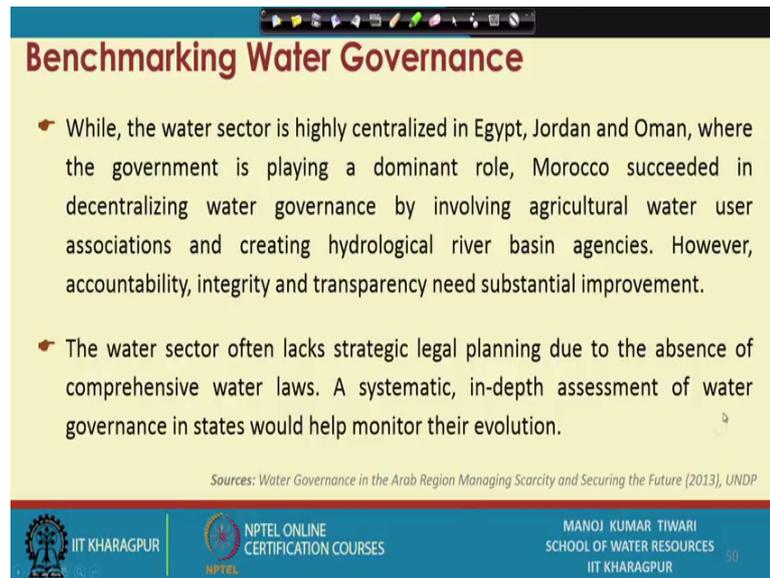
Sources: Water Governance in the Arab Region Managing Scarcity and Securing the Future (2013), UNDP

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Ah, in 2010 US state Agency for International Development conducted a water governance benchmarking initiative for evaluation of the governance capacity and

performance in various Asian and middle east countries including Egypt, Jordan, Morocco, Oman, these countries sort of have organized their water sectors well in setting policy goals and assigning responsibilities Egypt and Morocco were more effective in applying good governance and decision making practices.

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Benchmarking Water Governance

- While, the water sector is highly centralized in Egypt, Jordan and Oman, where the government is playing a dominant role, Morocco succeeded in decentralizing water governance by involving agricultural water user associations and creating hydrological river basin agencies. However, accountability, integrity and transparency need substantial improvement.
- The water sector often lacks strategic legal planning due to the absence of comprehensive water laws. A systematic, in-depth assessment of water governance in states would help monitor their evolution.

Sources: Water Governance in the Arab Region Managing Scarcity and Securing the Future (2013), UNDP

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While, the water sector is highly centralized in Egypt and Jordan and Oman the government rule in Morocco was less, ok, Morocco sort of succeeded in decentralizing the water governance by involving agriculture water user associations and creating hydrological river basin agencies to basically manage water at a smaller scale decentralized scale, ok. However accountability integrity and transparency need substantial improvement in such setups the water sector often many times. In fact, lacks strategic legal planning due to absence of comprehensive water law. So, a systematic in depth assessment of water governance in states or in reasons would definitely going to help monitor the evaluation of the good governance practices.

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The slide is titled "Indicators of Good Governance" in a dark red font. It features a yellow background with a blue header and footer. The main content is a list of bullet points. The first bullet point states that water is closely linked to economy, society, and the environment, and that simple answers for good governance do not exist. The second bullet point lists three characteristics of good governance: Simple, Pragmatic, and Coherent, each with a brief explanation. The footer contains logos for IIT Kharagpur, NPTEL, and the School of Water Resources, along with the name Manoj Kumar Tiwari.

Indicators of Good Governance

- Water is so closely linked to economy, society and the environment, therefore simple answers to guarantee good governance do not exist.
- A good governance practice should be:
 - Simple** - i.e., focus on essential aspects
 - Pragmatic** - i.e., practical and achievable
 - Coherent** - i.e., inform better management

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Now, the indicators some of the indicators of good governance how basically a good governance practice can be identified, ok, what are the terms which can suggest that this particular practice of water governance is a good. So, water is so closely linked to economy society and enforcement so, simple answers to like good government issues may not exist, ok. We will have to have more rigorous approach adopt more rigorous approach at times. For a good governance practice it should be there are like a few very important attributes of a good governance practice it should be simple, which focus on a very basic essential aspects.

A way too complicated governance practice will have lot of complexity and lot of chances of mistake or failure at any stage and particularly, in a centralized policymaking system if it fails at a one stage and add it is percolates from top to down top to bottom so, failure at any stage will subsequently lead failure at all lower stages. It has to be pragmatic means it has to be practical and achievable. We can conceptually by theory can come up with a very good governance principles where we incorporate each and everything we say do these do that and all that as we were discussing while IWRM Integrated Water Resource Management practices.

So, many times these involved so many inputs that it does not become too practical at the implementation level, but for a good indicate good water governance the it has to be

pragmatic, so that the goals or the targets which are said are actually practical and achievable and it has to be coherent, so that a better management could be ensured.

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Indicators of Good Governance

- Worldwide Governance Indicators (WGIs) are the most widely used indicators aggregating available governance indicators into six clusters as follows:
 - Voice and accountability
 - Political stability and absence of violence
 - Government effectiveness
 - Regulatory quality
 - Rule of law
 - Control of corruption

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Ah the worldwide governance indicators which are the most widely used indicators not only in the frame of let us say water governance for any sort of governance ok, they aggregate available governance indicator into six clusters. So, there are indicators could basically kept in six different clusters the wise and accountability what is the level of accountability and voices being heard of the public. The political stability and absence of violence in the indicator of course, absence of violence is not much relevant to water, but political stability it is. Then government effectiveness, regulatory quality, what is the quality of regulation rule of law and control of corruption.

So, all those different aspects are need to be basically considered and this is what the indicates the different indicators under these six clusters indicates the efficiency and the efficacy of the good governance principles.

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The slide is titled "Indicators of Good Governance" and is divided into two main sections. The first section, "Rule of law", includes: Political Freedom, Political Stability, Judicial Effectiveness, and Media Effectiveness. The second section, "Government Effectiveness", includes: Bureaucratic Efficiency, Economic Management, and Extent of Corruption. Each sub-indicator is marked with a blue checkmark. The slide footer contains logos for IIT KHARAGPUR, NPTEL ONLINE CERTIFICATION COURSES, and the name of the presenter, MANOJ KUMAR TIWARI, along with the affiliation SCHOOL OF WATER RESOURCES.

For example, the rule of law will incorporate the what is the political freedom, what is the political stability, what is the judicial effectiveness, media effectiveness display a lot of role in water then government effectiveness what are the bureaucratic efficiency what are the economic management, what is the extent of corruption ok, how much openness is there to accept the stakeholder or public interventions or public opinions.

So, all those kind of things would actually be incorporated should be counted, And, these set of values or these set of parameters could be considered some of these parameters could be considered or could be used to device the indicators which can be used to evaluate a particular governance mechanism whether it is following the target objective or not as well as could be used for benchmarking the systems water utilities and water governance systems.

So, with this we will and this week's discussion here itself and in next week we will specifically talk about the water governance in India, for in our own nation. So, see you all next week and.

Thank you.