

# **Equitable Water Distribution-Concepts and Cases – I**

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## **Lecture Notes**

### **Session 1:**

#### **Bio-Physical and Socio-Cultural Peculiarities of Water in an IWRM Context and its relationship to equity**

In this the session the effort is to understand the bio- physical and socio-cultural peculiarities or characteristics of water as a natural resource in the IWRM context to see how it is different from other natural resources like land or forest in order to provide a more complex understanding about issues related to its distribution, allocation and entitlement. In fact the whole question of equity and equitable distribution of water is embedded in the bio-physical and socio-cultural characteristics of water.

The major issues/topics that I would cover in this session include:

1. Water is an ecosystem resource:
  - Water is embedded within ecosystems or it is an embedded resource; it is not a freely manipulable resource; nor is it a resource to be indiscriminately mined.
  - The mainstream viewpoint around water has been one of seeing it as a freely manipulable resource and also one that can be indiscriminately mined. Examples: large dams, proposal for inter-linking rivers, indiscriminate ground water extraction, and so on
  - Environmental flows - a minimum flow of water is required for the preservation of ecosystem services and also the livelihoods of downstream communities.
  - The question of water quality or pollution: both point and non-point pollution; who is returning how much of water to the ecosystem and in what condition is an important issue related to quality of water.
  
2. Water is a common pool resource:
  - Water is a common pool resource and not a public good
  - Different property regimes – surface water by and large under public domain (state property) and ground water under the private property regime; if water has to be sustainably and equitably managed then irrespective of what the property regimes water needs to be seen as and managed as a common pool resource.

- One of the important characteristics of a common pool resource is that it is divisible and therefore amenable to sharing. Water is also divisible and amenable to sharing; water also has multiple, competing uses and users and there are tradeoffs involved; most of the water related contestations and conflicts are because of this characteristic of water.
  - There is problem of excludability in the sense that it is difficult to exclude anybody from water in its natural form and often exclusions come with high costs
3. Water is both a local and non-local resource
- Water needs to be seen both as a local and non-local resource and this is very important from the point of IWRM
  - There is the issue of scale; water is present at different scales and nests different scales – from micro watershed upwards to basins and further up to states and countries.
  - The way water is planned, used and managed causes externalities and this has serious implications for equity and allocations.
  - This has also implications for how we define or understand right to water – can every local community say that all the water flows through their area is theirs? Right to water or equitable distribution needs to be seen as every community having a proportional right to water as part of a collective right to assured livelihoods.
  - Water use beyond fulfillment of livelihood needs, does not form part of this *right* and moreover cannot be at the cost of others' livelihoods.
4. Assured and variable nature of water
- Water has two components, namely, assured water and variable water
  - The issue of dependability, for example 75% dependable flow and this means that certain quantity of water is available at 75% dependability or for 75% of the years (if we take 100 year cycle). It also means that in certain years one gets more water than this quantity which is called variable water.
  - Both these components need different types of handling
  - Assured water should be more equitably shared and tied to livelihood needs.
  - Variable water could be utilized and managed in many different ways such as bulk biomass production or distribution to more enterprising farmers at economic costs.
5. Socio-cultural aspect to water:
- In almost the entire South Asia water has a great socio-cultural-spiritual significance
  - Drinking water use, domestic water use, water for livelihoods etc are often mediated, at least partially, through socio-cultural traditions and values; ideas about equity also varies across different socio-cultural milieus.
  - Social hierarchies and inequalities such as caste, ethnicity, patriarchy and different types of minorities get intertwined with cultural traditions and values.

6. Peculiarities of water as `private property`:
  - Water never was a commodity prior to the advent of modernity or capitalism.
  - `Ownership` of water is basically an entitlement to use water in a certain way at certain points and times; it does not imply entitlement in an absolute sense.
  - It lacks the assuredness, ready manipulability and constancy that other private property resources like land have.
  - Since water is not a private property in the classical sense (irrespective of the property regime) market instruments cannot deal with water effectively.
  
7. Implications:
  - All these characteristics have a bearing on water related institutions, policies and laws, movements and struggles around water and the normative concerns underpinning our approach and viewpoints about water
  - All these have a also a bearing on how we understand equity and equitable water distribution – both the prospects as well as the limits
  
8. Illustration of the above with the case study of Lingmuteychhu watershed in west-central Bhutan.