



Environmental Flow Allocation



Some Introductory Remarks

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What is the Context for this Session?

- The objectives of water resource management or development have clearly shifted over the recent past
- Our objectives, which should drive what we do, are not simply economic development measures in rates of return and monetary benefits any longer
- New concepts have emerged and are now frequently enshrined in national plans and legislation:
 - ↓ Sustainable development
 - ↓ Equitable development
 - ↓ Ecological sustainability
 - ↓ etc. . . .



What is the Context for this Session?

- **This Session, and this “Window” aims to provide an instrument to provide ways and means to address the problems posed by two of these multiple objectives**
 - ↳ **Ecological sustainability**
 - ↳ **Sustainable development**



What is the Context for this Session?

- **We can take a cue from Ivan Cheret's remark yesterday about his experience in the Senegal River basin some 50 years ago**
- **When he started to look at the basin, to look at potential interventions, his boss wanted to know a few things first:**
 - ↳ **who the users were**
 - ↳ **what they were doing with the water**
 - ↳ **how they depended or interacted with the annual regime of the river**

Some Basic Questions to Frame our Discussions

- **First, We might also begin the same way by asking:**
 - ↓ **Who is the “Environment”?**
 - ↓ **What are their water needs, demands, dependencies?**
 - ↓ **How and why are they important**
 - ↓ **How do we measure this importance, and whether these needs are meet, especially in relation to the objective of sustainability?**

Some Basic Questions to Frame our Discussions

- **Second, how do we fit the process of addressing these questions, in a comparable and commensurate way, into the overall framework of IWRM planning?**
 - ↳ **What analytical tools do we need?**
 - ↳ **What data do we need?**
 - ↳ **When and in what sequence do we do this - at the beginning, at the end? How does it fit within the overall decision making framework and process?**

Some Basic Questions to Frame our Discussions

- **Third, What is the meaning of “Sustainability”**
 - ↓ **How will we know whether a particular strategy leads to Sustainability or will result in a sustainable path of development?**
- **Fourth, What criteria could we use to measure or assess alternatives to know whether an alternative will result in this outcome -- for that matter how would one formulate such alternatives?**

How Complex is this Question of Criteria?

- **One possible Framework - With major unknowns and uncertainties**
 - ↳ A minimum water requirement is guaranteed - or access is assured - to all humans to maintain human health
 - ↳ Sufficient water is guaranteed or assured to restore and maintain the health, services and functions of ecosystems
 - ↳ Data on water resources availability, use, and quality are collected and accessible to all (transparency)
 - ↳ Water quality is maintained to meet agreed objectives and standards
 - ↳ Human action in the basin do not impair the long term renewability of freshwater stocks and flows
 - ↳ Institutional mechanisms exist to resolve conflict over water
 - ↳ Water planning and decision making are participatory and all affected parties are represented