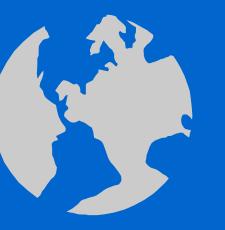
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Environmental Flow Allocation



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

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- New concepts have emerged and are now frequently enshrined in national plans and legislation:
 - **U** Sustainable development
 - 4 Equitable development
 - **Ecological sustainability**
 - **₽ etc...**

What is the Context for this Session?

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- 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
 - **U** 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
- - $\boldsymbol{\Psi}$ what they were doing with the water
 - I 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"
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- 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 <u>or access is assured</u> 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)
 - $\ensuremath{\mathbb{Q}}$ Water quality is maintained to meet agreed objectives and standards
 - 4 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

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