

The background of the slide features the United Nations Environment Programme (UNEP) logo, which consists of a blue laurel wreath encircling a globe. Below the wreath, the word "UNEP" is written in large, blue, serif capital letters.

Ecosystem Approach for the Management of Water Resources

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Facts

- Scientific evidence shows that ecosystems(including fresh water) are under unprecedented pressure, threatening prospects for sustainable development.
- 60% of the 24 ecosystems examined by the Millennium Assessment(MA) are being used in unsustainable manner.
- Humans have changed ecosystems more rapidly and more extensively during the past half century than ever before.

Facts

- Ground water is at the origin of several rivers , lakes, wet lands. Therefore it is part of an ecosystem
- Ground water plays an essential role in aquatic ecosystem where it contributes to preserving and maintaining the fauna and flora and feeding numerous wet lands. The latter host great biodiversity, create carbon sinks and allow natural cleaning of pollution.

Draw backs of IWRM

- Governments faced difficulties to implement IWRM due to the complex scientific, socioeconomic and financial elements to be considered.
- Less attention has been given to “environmental and ecological sustainability” and resulting ecosystem services

Draw backs of IWRM

- IWRM is not a holistic since it considers water as the most important resource.
- Integrated management of only one resource is not possible because of the large amount of interconnections with other resources.
- IWRM must balance all ecosystem services to be most effective

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An ecosystem approach to WRM

- Ecosystem Approach for the management of water resources is a strategy for the integrated management of land, water and living resources
- Ecosystem Approach is a scientific , participatory socio economic and management oriented strategy
- An integrated ecosystem approach is therefore crucial to maintaining both ecosystem and human health and ensure the sustainability of water supply.

IWRM/Ecosystem Approach

- Water management has traditionally focused on specific factors directed more toward individual concerns such as water pollution, water supply , water governance , pricing etc
- The value of an ecosystem approach results in the fact that it focuses on the broader goal of balancing and sustaining ecosystem services as a prerequisite for meeting these sector needs.

Ecosystem Based Management (EBM)

- An EBM can facilitate and integrate actions to meet multiple societal goals:
 - Finding balance between different water users and uses
 - Preserving water use opportunities (services)
 - Integrating water quality and quantity
 - Merging aquatic and terrestrial concerns.
 - Preserving human well being

Steps for Implementation

- Successful implementation should involve four steps:
 1. Making the case;
 2. Generating knowledge;
 3. Turning knowledge to action;
 4. Monitoring, evaluation and feedback.

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Making the Case

- Conduct regional and national awareness-raising campaign on the concept of “place-based” ecosystem management and on ecosystem services, their interlinkages, and their relationship to human well-being;
- Facilitate rapid assessment of the links between key ecosystem services at the national and regional levels;

Generating Knowledge

- Implementation of ecosystem approach would need to:
 - Establish networks for data and information exchange on ecosystem service;
 - Facilitate or undertake ecosystem level assessment;
 - Identify relevant ecosystem services and their relation to human well-being;
 - Identify the direct and indirect drivers of ecosystem change;
 - Develop plausible scenarios based on the impacts of direct and indirect drivers over time;
 - Build capacity to undertake economic valuation of ecosystem services.

Turning Knowledge to action

- Determine which services have priority;
- Develop effective intervention strategies;
- Ensure equitable access and use of ecosystem services by all stakeholders

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Monitoring, evaluation and feedback (Adaptive Management)

- Offer technical support for the development and review of indicators of ecosystem service delivery;
- Facilitate review of the delivery of ecosystem services against established baselines;
- Facilitate and build capacity to develop and implement feedback mechanisms.

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Capacity Building

- UNEP developed a training package on ecosystem approach for the management of watershed.
- UNEP is seeking partnership to organize training for trainers courses in the region.

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THANK YOU FOR YOUR ATTENTION

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