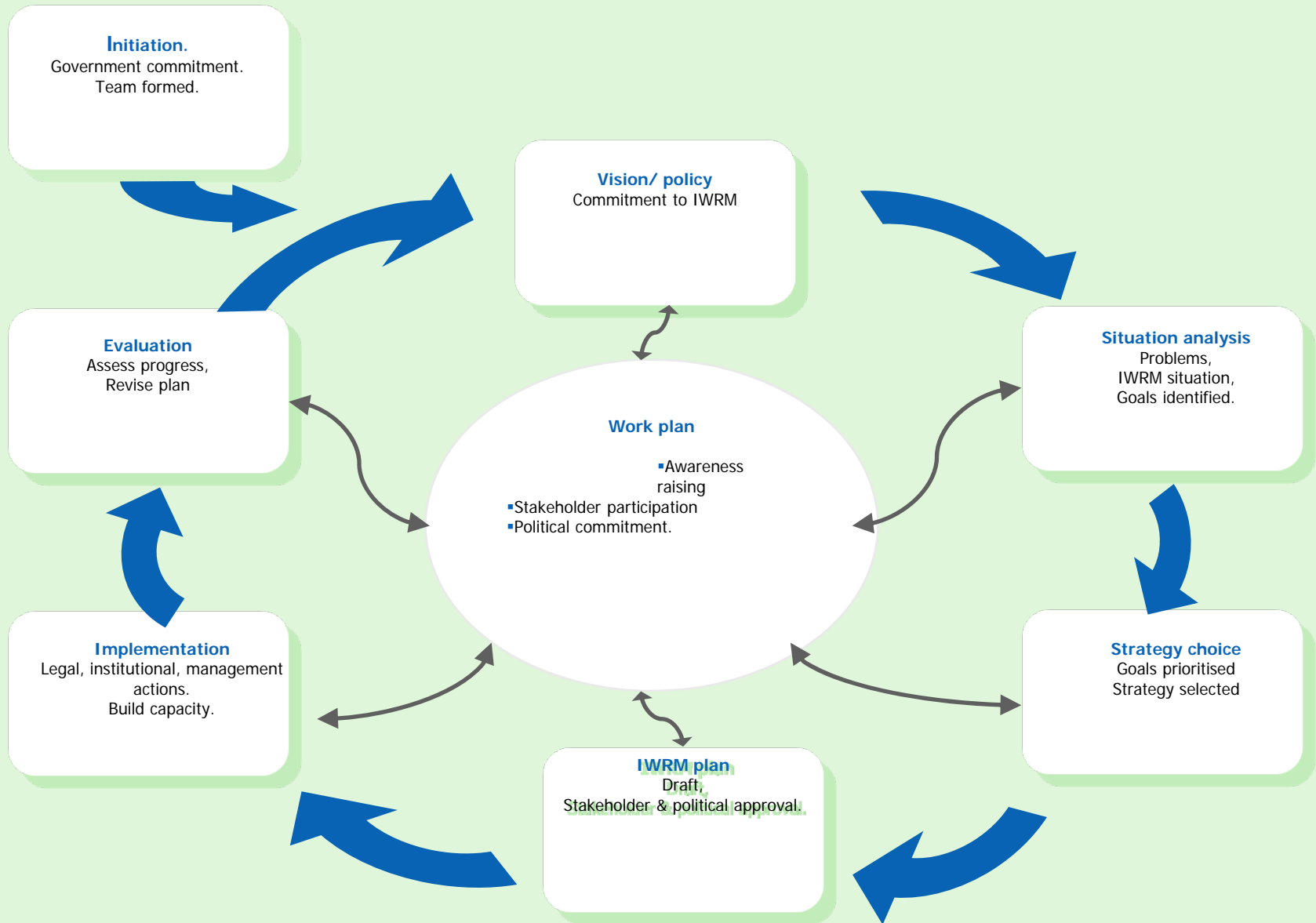


Lesson 6:

Organization and Management:

Planning for IWRM

Figure 2. The Cycle for developing and adjusting an IWRM plan



Integrated Water Resources Management Plans Training manual and Operational Guide March 2005





Example planning process:

1. **Work planning and stakeholder participation**
2. **Building of a strategic vision**
3. **Situation analysis**
4. **Water management strategies**
5. **IWRM Plan prepared and approved**
6. **Implementation and evaluation**



- Work Plan and Stakeholder Selection**
- Establish the Strategic Vision
- Situation Analysis
- Water Management: Strategy and Options
- IWRM Plan: Prepared and Approved
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DEVELOPING THE WORK PLAN

WHAT ARE THE EXPECTED OUTPUTS?

This stage of the planning cycle addresses preparing for the work of producing the IWRM plan and therefore the expected outputs from this stage would be:

- 1. A programme of action with detailed work plan and means of funding is in place.**
- 2. Political will and support for the planning process is built.**
- 3. A framework for broad stakeholder participation is in place.**
- 4. Capacity building activities to support the planning process are identified.**

In identifying the key stakeholders, you should consider the following questions:

- 1. Who are the potential beneficiaries?**
- 2. Who might be adversely impacted?**
- 3. Have vulnerable groups who may be impacted by the plan been identified?**
- 4. Have supporters and opponents of changes to water management systems been identified?**
- 5. Are gender interests adequately identified and represented?**
- 6. What are the relationships among the stakeholders?**

Then:

- 1. What are the stakeholder expectations of the plan?**
- 2. What benefits are likely to result from the project for the stakeholder?**
- 3. What resources might the stakeholder be able and willing to mobilize?**
- 4. What stakeholder interests conflict with IWRM goals?**

Methods for Stakeholder Participation

Methods may include:

- 1. Stakeholder workshops, in which selected stakeholders are invited to discuss water issues.**
- 2. Representation in the management structure for the planning process.**
- 3. Local consultations ‘on the ground’.**
- 4. Surveys.**
- 5. Consultations with collaborating organizations (such as NGOs, academic institutions, etc.).**

Types of Participation

Manipulative participation Participation is simply a pretence

Passive participation People participate by being told what has been decided or has already happened. Information shared belongs only to external professionals

Participation by consultation People participate by being consulted or by answering questions. No share in decision-making is conceded and professionals are under no obligation to take on board people's views

Participation for material incentives People participate in return for food, cash or other material incentives. Local people have no stake in prolonging practices when the incentives end

Functional participation Participation is seen by external agencies as a means to achieve project goals, especially reduced cost. People may participate by forming groups to meet predetermined project objectives

Interactive participation People participate in joint analysis, which leads to action plans and the formation or strengthening of local groups or institutions that determine how available resources are used. Learning methods are used to seek multiple viewpoints.

Self-mobilization People participate by taking initiatives independently of external institutions. They develop contacts with external institutions for resources and technical advice but retain control over how resources are used



SOURCE: Dalal-Clayton B, Bass S (2002)

Putting Together an IWRM Plan

Once stakeholders have been identified, identify people to play roles, such as:

- Technical
- Leadership
- Communication
- Education
- Political liaison

Some potential partners and their contributions are:

Mass Media

Coverage of watershed events
Human interest stories
Understanding of local information needs
Ability to get information out quickly

Landowners & Managers

Trustworthy information sources
Role models
Peer pressure

Financial Institutions

- Influence over management decisions
- Linkage with landowners
- Prestige for partnership
- Funding for programs

Agri-businesses & Industries

- Distribute information and influence decisions
- Sponsor field days and demonstrations
- Donate equipment and services
- Funding for programs

Farm organizations

- Credibility and visibility for programs
- Existing communication channels

Environmental & Conservation Groups

- Knowledge of environmental constituencies
- Awareness of problems and issues
- Committed and knowledgeable memberships

Local Elected Officials

- Political leadership and credibility
- Land use and resource management decisions
- Financial support for projects

Local Government Agencies

- Financial and technical support
- Policies and decisions that affect the watershed
- Logistics, equipment, and related support
- Data collection and analysis expertise

Chambers of Commerce

- Compatible, broader goals for local economy
- Concerns and interests of businesses

Students

- Influence over efforts in the future
- Time and energy for "repetitive" tasks

Teachers

- Influence over values and beliefs
- Ability to shape future generations
- Source of information

Women's groups

Influence over family decisions

Interest and concern for health issues

Ability to mobilize and motivate members

Religious leaders

Commitment to stewardship

Ability to appeal to higher values

Credibility and legitimacy

Retired persons

Time and talent for teamwork

Understanding of local conditions

Credibility in community

Civic organizations

Ongoing program activities

Interest in and concern for community

Fund-raising skills

Capacity Building

- The simplest way to address capacity building is to follow each component of the work plan with the question – **do the people involved in this part of the plan have sufficient knowledge to be able to participate effectively?**
- If not then take the necessary steps to raise their understanding, awareness, skills or competence.
- This starts right from the beginning with the knowledge of the politician and the skills of the management team.
- Capacity building needs will change as the plan moves to implementation and different skills are required.

- Work Plan and Stakeholder Selection
- Establish the Strategic Vision**
- Situation Analysis
- Water Management: Strategy and Options
- IWRM Plan: Prepared and Approved
- Implementation and evaluation



- The output from this step of the planning process is a formal or informal statement of a water vision or water policy which embraces the principles of sustainable management and development of water resources.**

- A strategic vision for the sustainable development and management of water resources at the national level implies:**
 - 1. Linking long-term vision to medium-term targets and short-term action;**

 - 2. "Horizontal" linkages across sectors, so that there is a coordinated approach to development;**

 - 3. "Vertical spatial linkages, so that local, national and global policy, development efforts and governance are all mutually supportive;**

 - 4. Genuine partnership between government, business, and community and voluntary organizations since the problems are too complex to be resolved by any group acting alone.**

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- ❑ The purpose of this step is to help characterize the present situation and to use the information to predict future adjustments necessary for an IWRM approach.**

- ❑ The situation analysis examines the key factors of influence in a given situation. It is especially important to view the situation first from the perspective of those directly affected. Awareness of the problems and the motivation to seek solutions are a function of the condition experienced by the stakeholders.**

- ❑ While there is an emphasis on the participation of stakeholders this should not be done to the extent of ignoring the statistical aspects and quality of data. One challenge in the situation analysis is to get the balance between the analytical tasks and the stakeholder inputs.**

- ❑ There is a role for specialist expertise in conducting the analysis when highly technical skills are required, large baseline surveys need to be done or there is particular need for an independent viewpoint**

The purpose of the situation analysis is to examine the existing water resources management system in terms of the IWRM principles and the goal of sustainable management and development.

Weaknesses, problems and issues identified may stem from the following substantive areas:

- 1. Water resources policy**
- 2. Water (resources) legislation**
- 3. Water Management institutions, and**
- 4. Water (resources) management practices.**



Scope of water resource situation analysis

- ❑ **Institutional and legal analysis.** Assess the mandates of institutions, laws and policies for conflict, conformity, overlap and consistency with sustainable management of water resources.
- ❑ **Hydrological and hydrogeological assessment** examines the extent of the surface and groundwater resources available, taking account of seasonality and long-term trends in supply.
- ❑ **Demand assessment** examines the competing uses of water with the physical resource base and assesses demand for water (at various prices), thus helping also to determine the financial resources available from tariff revenues for water resource management in different development scenarios.
- ❑ **Environmental impact assessments (EIA)** collect data on the social and environmental implications of development programmes and projects. EIA is an important tool for cross-sectional integration involving project developers, water managers, decision-makers and the public. It can be seen as a special form of water resources assessment.

- ❑ Information for the situation analysis comes from a variety of sources.**
- ❑ For reasons of efficiency and effectiveness, the planning process should build on and exploit earlier knowledge and experience and draw on lessons learned.**
- ❑ Such knowledge is rarely readily available nor well documented.**
- ❑ It often exists in an ad-hoc form among professionals and practitioners as well as among government and non-government staff within water resources and water relevant sectors.**
- ❑ The political level holds important knowledge on the various processes involved in achieving overall endorsement of the goals of the plan and rallying support to its implementation**



- ❑ **Social assessment** examines how social and institutional structures affect water use and management, degree of equitable access to water such as by gender and how specific projects might affect the social structure.

- ❑ **Risk or vulnerability assessment** analyses the likelihood of extreme events, such as flood assessment; the environmental implications of development programmes and projects; management, or how a specific project might affect social structures; and droughts, and the vulnerability of society to them.

- ❑ **Demand management assessment** assesses the potential for water savings through water conservation and demand management.

- ❑ **Unconventional sources assessment** examines the potential for water reclamation, re-use, recycling and desalination.

Source: Adapted from the GWP IWRM Toolbox

Often must be derived from raw data

CORE STAKEHOLDERS

- 1. Government Ministries and related institutions involved in national development planning and policy making**
- 2. Government Ministries and related institutions involved in key water-related sectors, including domestic water supply and sanitation, irrigation, agriculture, energy, health, industry, transport, fisheries and tourism**
- 3. Water utilities, agencies and related bodies (e.g., Water Development Boards)**

ESSENTIAL STAKEHOLDER TO BE BROUGHT INTO THE PROCESS

- 1. Local communities and community-based organizations (mayors and religious leaders, for example)**
- 2. The private sector, including but not limited to water supply and sanitation service providers**
- 3. Sectoral interest groups such as farmers and fishermen**
- 4. Women's groups and associations**
- 5. Representatives of indigenous communities**
- 6. Non-government organizations**
- 7. Media representatives**
- 8. Research and training institutions, including Universities**
- 9. Facilitating partners (e.g., in developing countries—UN agency country offices, Global Water Partnership country water partnerships)**



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Key goals in IWRM may be drawn from the following major areas:

- 1. In an international context *water resources shall be managed observing international agreements, conventions, global values and good neighbourliness which entails an equitable sharing of water and benefits of transboundary watercourses***
- 2. In a national context *water resources shall be managed to support the achievement of national development goals such as poverty reduction, the millenium development goals and sectoral development goals within food production, energy production, industry and environment***
- 3. In a context of human and ecosystems´ need *water resources shall be managed in such a way that they are accessible for everyone, satisfy basic human needs and aquatic ecosystem requirements. These human needs and environmental requirements shall take priority during allocation of water resources***

4. In a context of management principles the most significant principles include
- *decentralisation of responsibilities to the lowest appropriate level, participatory management and decision making including gender mainstreaming,*
 - *cooperative governance (across sectors and across agencies)*
 - *management within hydrological units (catchments)*
5. In a context of financial sustainability water resources management benefit from
- *full cost recovery within the management system*
 - *users and polluters pay for the services.*
 - *charges and tariffs, subsidies, incentives and disincentives are key.*

- ❑ Targets for each goal describe specific and measurable activities, accomplishments or thresholds to be achieved by a given date**

- ❑ If it is to be effective the strategy has to have broad support across government, the private sector and civil society.**

- ❑ This has to be established and maintained from the start of the planning process.**

- ❑ This implies that stakeholders from civil society, the private sector as well as government are involved in all stages of the process of developing and implementing the strategy and in making decisions about the scope, the process and the outcomes**

Principles which assist in strategy selection

Maximise use of existing capacity. Wherever possible, make use of existing capacity within existing institutions rather than establishing new institutions.

Create co-ordinating mechanisms. It may be appropriate to create one “coordination unit” (or another suitable mechanism) which co-ordinates the involvement of stakeholders and ministries in strategy selection and planning.

Knowledge management. Good co-ordination should facilitate and maximise the learning across and between institutions, programmes and plans (such as poverty reduction strategies, water and sanitation programmes, environmental programmes) and consequently enable more efficient use of resources.

The enabling environment

This includes policy, legislation, and financing systems. Legislative processes take a long time, frequently several years and changes are cumbersome.

Legislation is often lagging behind in terms of responding to the dynamic changes in the water resources situation and the society.

Typically laws and associated regulations that impacts water resources are found in many different sectors and customary laws further makes the situation complex.

Environmental laws and regulations, sewage discharge regulations, water supply laws and regulations and hydraulic works regulations are often uncoordinated and prepared by different agencies in very different points in time

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When it comes to the actual writing of the plan there are four questions that need to be answered regarding:

- 1. The content of the plan**
- 2. Political and public participation**
- 3. Timeframe for completion of the plan**
- 4. Who writes the plan.**



- ❑ After completion of the plan, it needs to be accepted by the all stakeholders including government.**
- ❑ It makes no sense to spend all the resources on a developing plan that is rejected at the end or consigned to the shelf never to be implemented.**
- ❑ That is why political and stakeholder participation from the onset of the process of developing an IWRM plan is so important.**

Assessment of IWRM plan – A Check list

The following are some questions to be used to assess the plan.

BUILDING COUNTRY OWNERSHIP THROUGH PARTICIPATION:

- Does the IWRM plan describe the participatory process used to build ownership for the plan?**
- Does the IWRM plan summarise the major issues raised during the participatory process and the impacts of the process on the content of the plan?**
- Does the plan envisage its linkage to other national development plans and government documents which do, or should, address sustainable management and development of water resources?**
- Are there plans for the public dissemination of the plan?**

DIAGNOSING THE WATER RESOURCES PROBLEM.

- How adequate are the existing water data?
- How well have the nature and causes of the water resource problems been identified? Are there any discernable trends?
- To what extent has the analysis of the problems considered current thinking on water resources management?



TARGETS, INDICATORS AND MONITORING.

- **Does the IWRM plan define medium and long term goals towards sustainable management of water resources, establish indicators of progress and set annual and medium term targets?**
- **Are these indicators and targets appropriate and consistent with the policy and strategy choices in the plan?**
- **Are current and proposed monitoring and evaluation systems adequate and sustainable?**

PRIORITY ACTIONS.

- ❑ Does the plan present clear priorities for action, relevant to the goals and targets and feasible in the light of the diagnosis, the targets, their estimated costs, available resources, institutional capacities and effectiveness of past policies?**

- ❑ Does the strategy have an adequate and credible financing plan and is it amenable to adjustment responding to variable financing flows.**

- ❑ To what extent do the structural and sectoral goals and actions of the plan address key policy, institutional and management constraints (governance) to sustainable management of water resources?**

- ❑ Do these address or encompass water as an economic as well as a social good, downstream responsibilities, the various forms and interdependent nature of the resource and the competing water uses in basins?**

- ❑ To what extent are participatory and gender constraints and impacts of present water resources management systems addressed?**

A communication strategy for the plan should have been part of the communication strategy established by the management team during the whole planning process.

The final IWRM plan should be made widely known and easily accessible. This is important because, whatever the consultation process, it will have been impossible to reach all interested parties.

Most consultation processes can only be samples and therefore once a national plan has been adopted it is important that everyone has access to it and is able to debate and prepare for the implications of implementation.

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- The plan should be implemented as written, but with the realization that certain aspects may have to be modified based on experience during implementation.**

- These modifications to the plan should be documented and incorporated into the IWRM plan as circulated.**

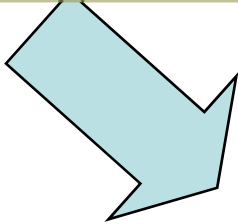
- Constant and thorough monitoring of progress to the medium and long term goals of moving towards sustainable management of water resources should also be used to detect any required or desirable changes.**

- The reliability, accuracy and precision of the monitoring and evaluation systems should be confirmed during the monitoring stages? Have these indicators and targets proved appropriate and consistent with the policy and strategy choices in the plan?**

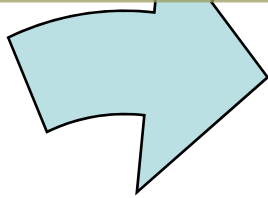
- Have the measured indicators of progress shown progress towards the**

- ❑ **Finally, all monitoring and evaluations should be used to modify and improve the IWRM plan. All such modifications to the process, changes in timing, budget or goals should be made available to all participants.**

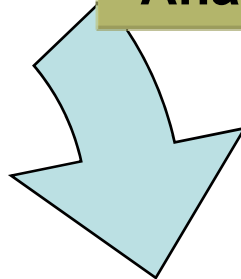
Initiation and Team Building



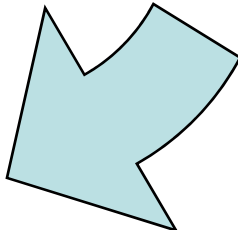
Vision/Policy



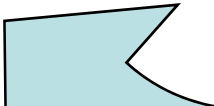
Situation Analysis



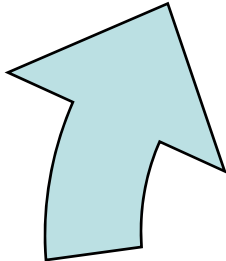
**Water Management:
Strategy and Options**



**IWRM Plan:
Prepared and
Approved**



**Implementation
and evaluation**





Black water from the City
of Nanjing enters the
Yangtze River



