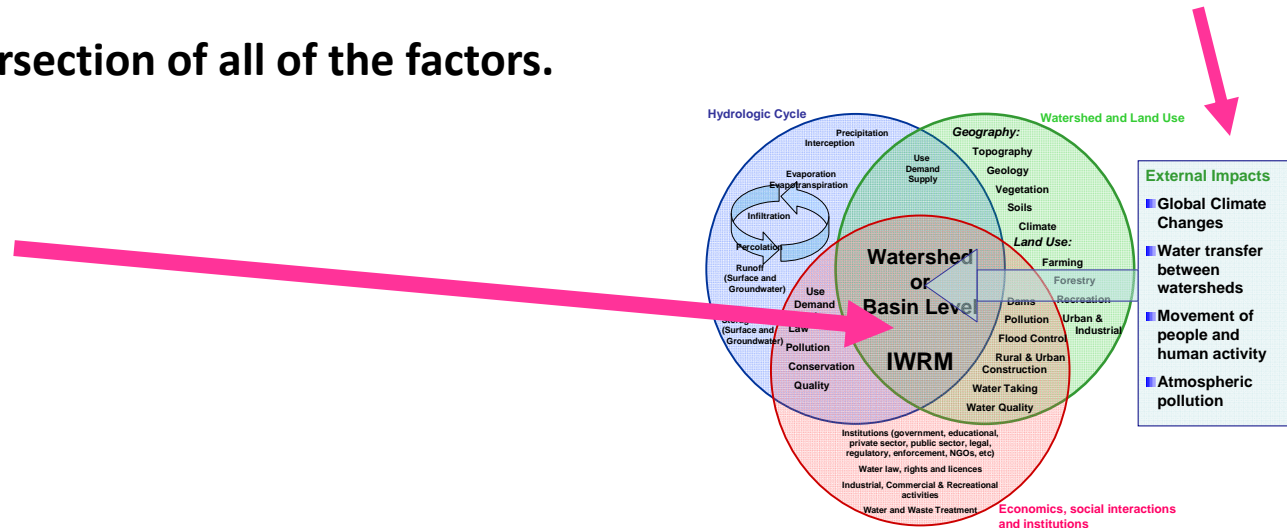


Lesson 10: Summary

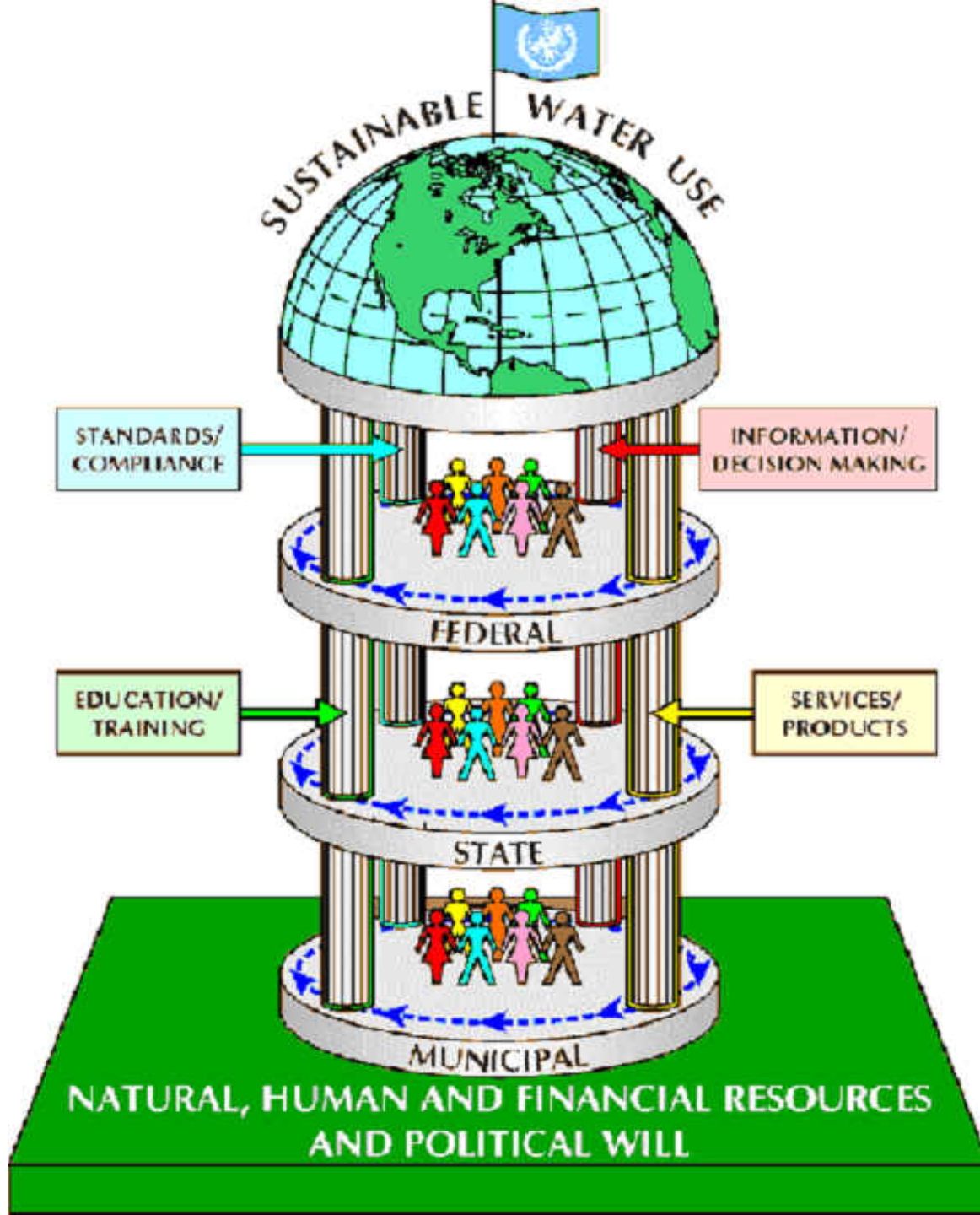
This overview of IWRM processes shows many of the individual components of IWRM planning. These components are shown in three main areas:

- ❑ **Hydrologic cycle (blue)** - with common hydrological factors listed
- ❑ **Watershed and land use (green)** - listing factors where land activities affect water
- ❑ **Economics, social interactions and institutions (pink)** - showing the various factors in those areas that bear on water supply and IWRM
- ❑ Outside factors such as global climate changes, water transfers, atmospheric pollution, and movement of people are also listed. These factors cannot be considered only at the watershed or drainage basin level. Water can also be exported from the watershed in food or other products.
- ❑ IWRM lies at the intersection of all of the factors.

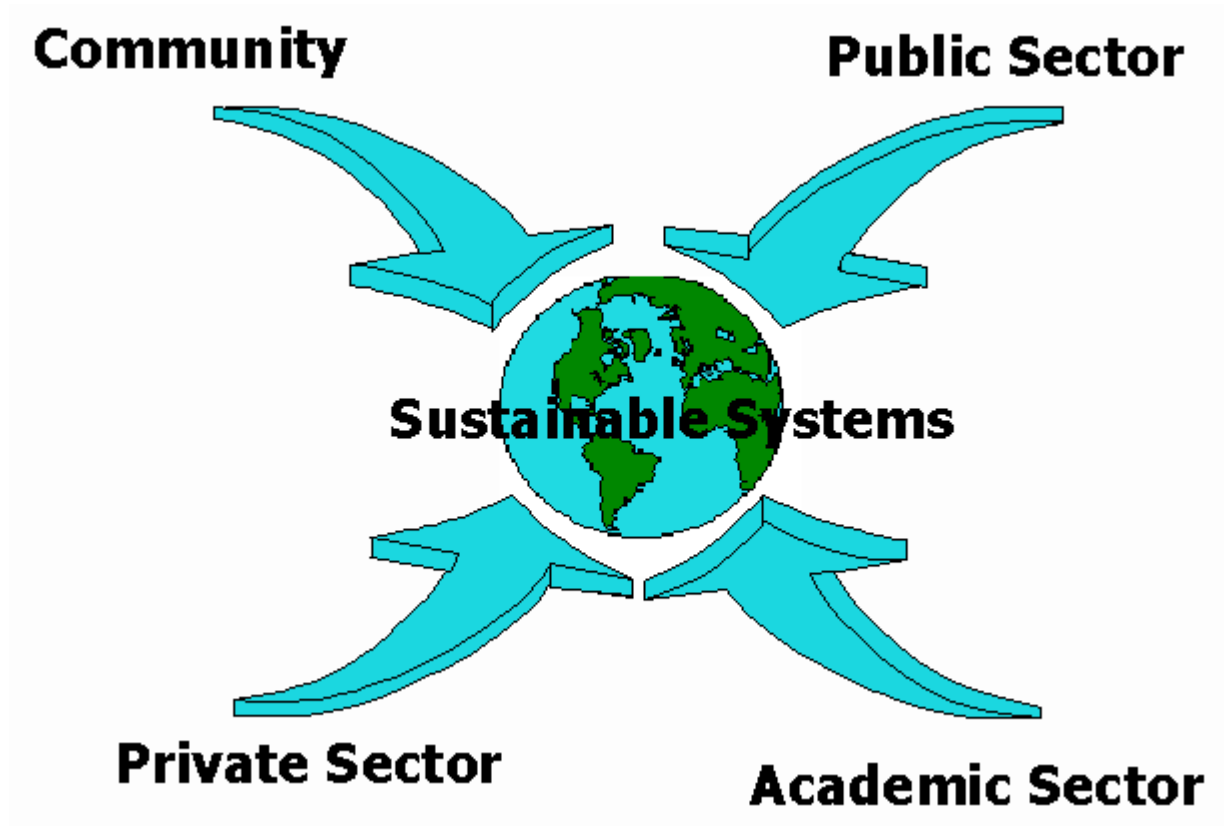


The Four Pillars of Sustainable Water Use

- 1. Standards/Compliance**
- 2. Information/Decision Making**
- 3. Services/Products**
- 4. Education/Training**



The Four Stakeholder Groups



Three levels of capacity development:

■ Individual

Enables individuals to embark on a continuous process of learning – building on existing knowledge and skills, and extending these as opportunities appear.

■ Institutional

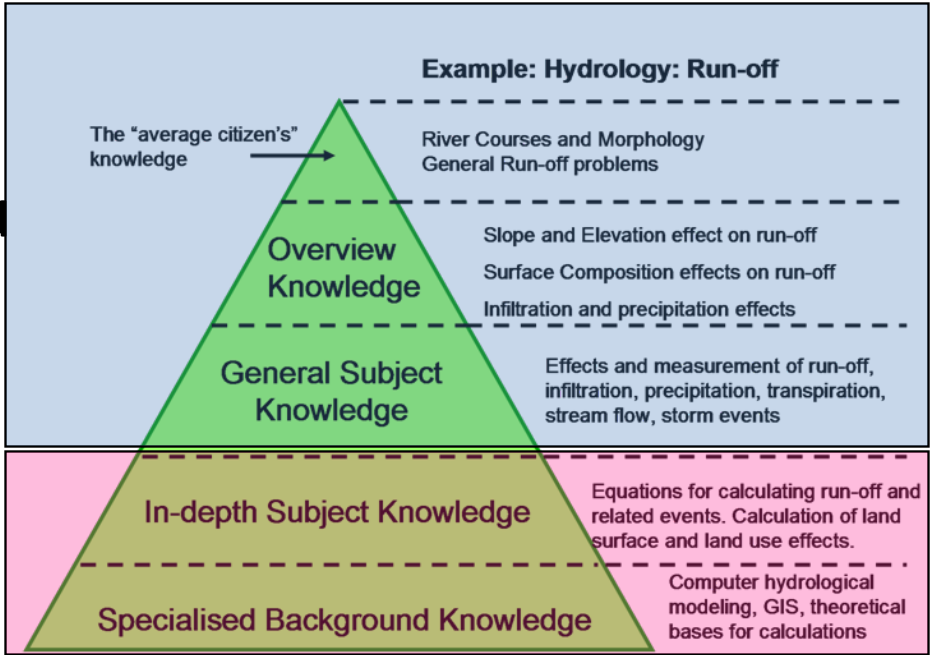
Involves building on existing capacities, encouraging existing institutions to grow.

■ Societal

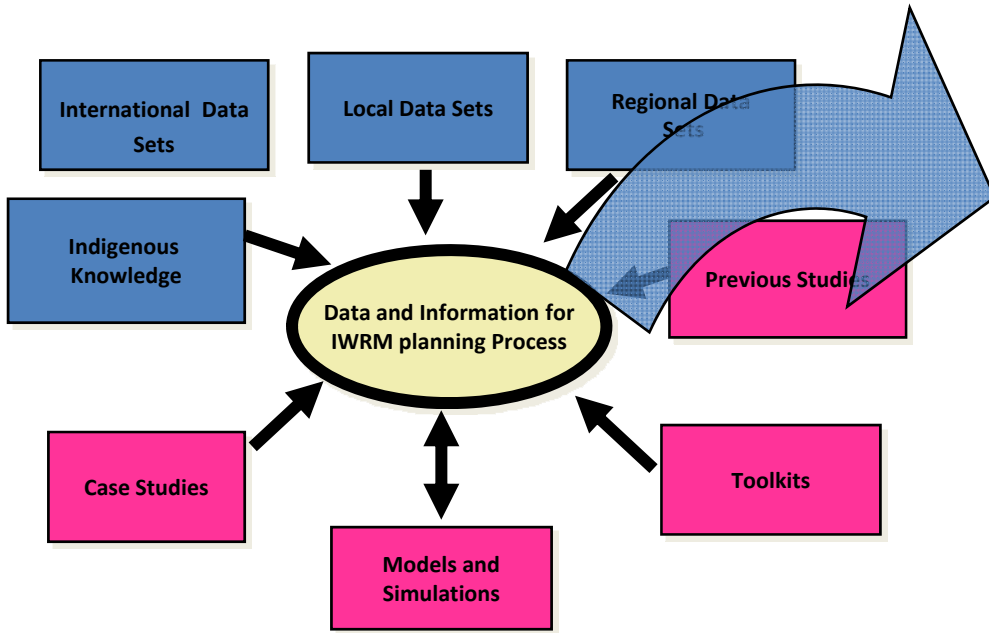
This involves capacities in society as a whole, or a process of transformation to assist development. An example is creating the kinds of opportunities, whether in the private or public sector, that enable people to use and expand their capacities to the fullest. Without this, skills rapidly erode, or become obsolete.

As an example, if everyone shared the “core knowledge” on hydrology shown in the previous diagrams, communications on that subject would be much more efficient and clearer.

The experts in hydrology would still be required when the knowledge required was more complex and specialized



- In addition to "core knowledge", about the issues in IWRM, practitioners need to acquire or generate a large amount data and information about the area selected for the IWRM study.
- This then has to be analyzed, interpreted and presented in a form that others in the IWRM planning process can understand.
- The range of types of data and information can be very large; it can range from raw water quality data to complex legal documents



**IDENTIFY INFORMATION AND
DATA GAPS**

**ITERATIONS TO IDENTIFY AND FIND MISSING DATA
AND INFORMATION**

The potential benefits of IWRM include:

- ❑ **Consensus-based water management** decisions with high implementation success
- ❑ **Significantly improved community capacity** for water resources decision making
- ❑ **Significantly improved institutional capacity** for multi-stakeholder/multi-disciplinary water management
- ❑ **Reduced costs** for governments, because increased partnerships share costs across stakeholder groups
- ❑ **Measurable and sustainable water resources improvements**, as a result of community consensus as to a “best” course of action, including responsibilities and costs
- ❑ A planning and management process that is **ongoing, adaptive, and iterative.**

Summary of the Goals of IWRM

- To develop a consensus-based vision of ideal water resources conditions for the area of interest.
- To measure the distance between current and ideal conditions and, thus, define one or more water management problems based on consensus among stakeholders.
- To develop and apply tools for water resources decision making including demonstration projects, computer simulation models, conflict resolution tools, data management and sharing, and so on.
- To identify appropriate management actions to resolve observed problems.
- To assign responsibility for actions and costs for remedial measures.

- To agree upon acceptable timelines for implementation of management actions.**
- To monitor the degree of implementation of management actions and progress toward water resources goals.**
- To build the capacity of regional stakeholders for collaborative, consensus-based management of water resources.**
- To build institutional capacity to work across jurisdictional, disciplinary and sector boundaries.**
- To achieve measurable progress toward improved water resources conditions.**

To achieve these goals, an effective IWRM process must have the following characteristics:

- 1. A shared and highly valued water management goal.**
- 2. Representation from all major stakeholders.**
- 3. Substantive involvement of all stakeholders in the full range of technical, economic, and social decisions from the very beginning of the plan.**
- 4. Members with decision-making power; it is therefore important to be very clear about who can and cannot serve as alternate.**
- 5. Substantive shared analysis of problems, data and solutions.**
- 6. Consensus-based solutions that are informed by science, however, science should not overrule consensus in IWRM.**

- 7. An effective mechanism for conflict resolution.**
- 8. Clear assignment of responsibilities for actions and costs.**
- 9. Regular audit of the effectiveness of the IWRM process itself, of the degree of implementation of recommended actions and of the environmental impact of those actions.**
- 10. As much as possible, a level playing field for participants with respect to technical and financial resources.**
- 11. Regular review, reanalysis and revision of the water management plan.**

