



Sustainable Water
Integrated Management (SWIM) -
Support Mechanism



Project funded by
the European Union

Water is too precious to waste

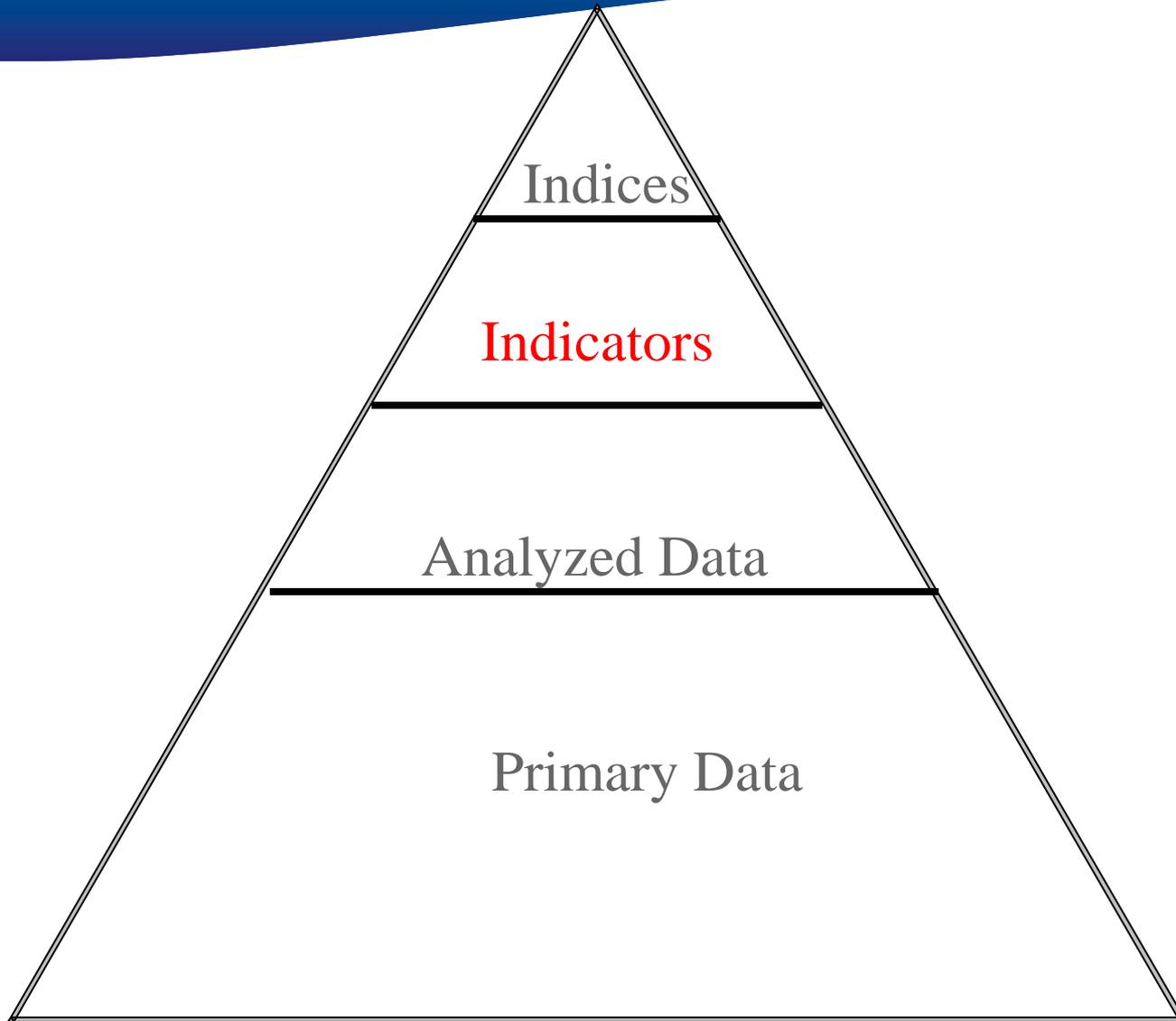
**SUB-REGIONAL WORKSHOP ON INTER-LINKAGES
BETWEEN IWRM & ICZM**

Indicators relating to IWRM

WHAT ARE IWRM INDICATORS?

- IWRM indicators are instruments for monitoring, assessing & reporting on progress in adopting IWRM concepts.
- IWRM indicators also provide information in a simpler more readily understood form than the technical jargons characterizing scattered primary information.

Information Pyramid

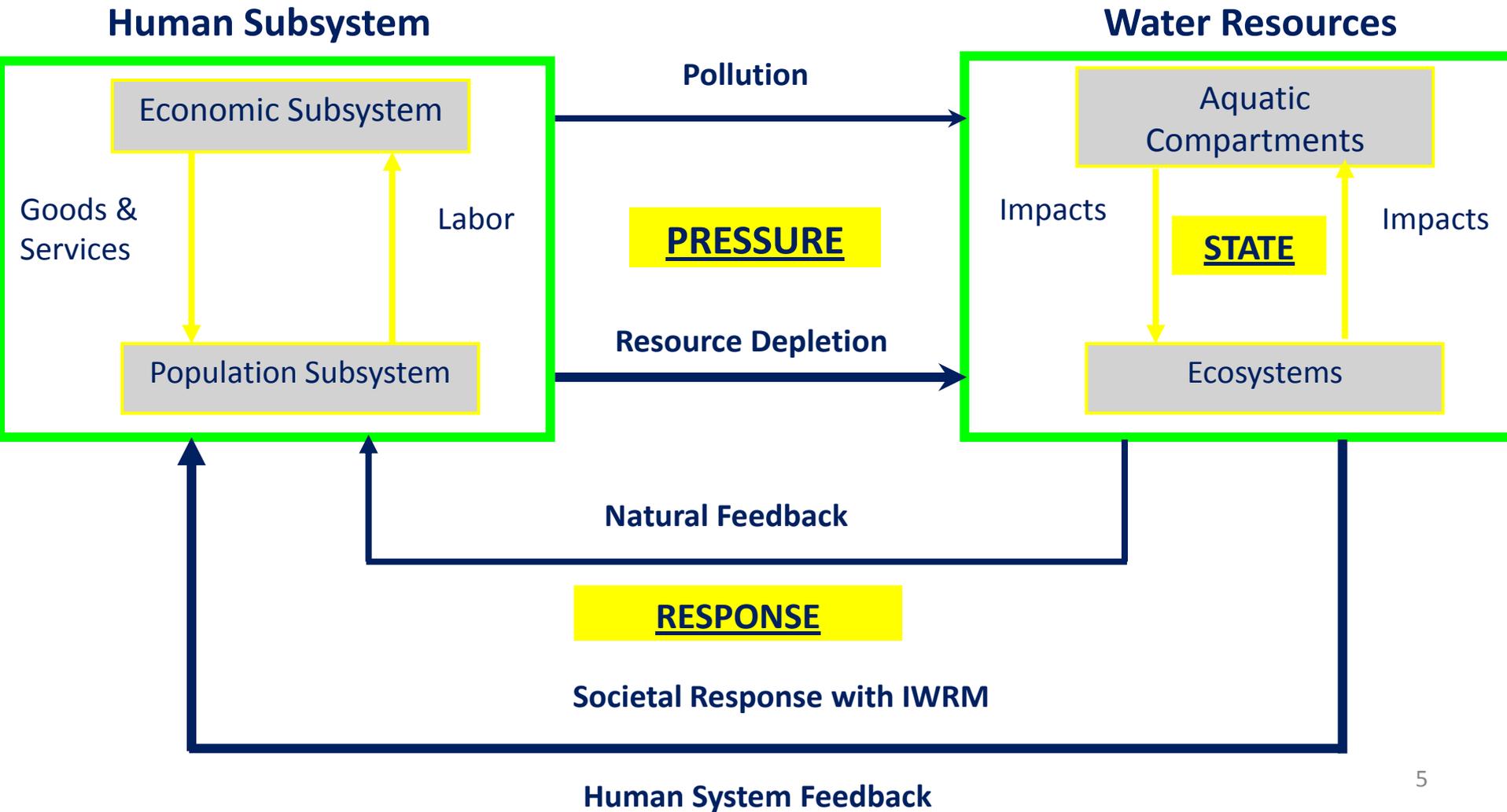


TYPES OF IWRM INDICATOR

A widely used framework for IWRM indicators arises from the following 3 questions:

1. What is the status of IWRM? State indicator
2. Why this is happening? Pressure indicator
3. What are we doing about it? Response indicator

IWRM Indicators Structure “Pressure-State-Response”



HOW TO SELECT IWRM INDICATORS?

- The application of selection criteria is important in deciding which indicators are the most appropriate for indicating IWRM implementation.
- In general, selection criteria for IWRM indicators are usually based on three overriding considerations:
 1. **Information reliability**
 2. **Relevance**
 3. **Useful to the policy makers**

I – INFORMATION RELIABILITY

1. SCIENTIFIC VALIDITY:

The indicator should be technically & theoretically sound & there should be wide consensus among water experts that the indicator is valid.

2. INFORMATION AVAILABILITY:

The information supporting the indicator should be readily (1) available, (2) accessible (3) timely & (4) sufficient time-series information should be available to show the long term trends.

3. ADEQUACY OF INFORMATION:

The IWRM information should be of good quality, i.e. accurate & insensitive to extreme values.

4. COST EFFECTIVE:

The data supporting IWRM indicators should not be difficult or expensive to obtain. Should be within the SWIM Countries capacity.

II - RELEVANCE

1. REPRESENTATIVE:

The indicators should provide a representative picture of IWRM implementation.

2. GEOGRAPHICAL COVERAGE:

Ideally the IWRM indicators should be national in scope but also applicable to different regions & scales.

3. RESPONSIVE TO CHANGE:

IWRM indicators should be sensitive to temporal changes. The selected list of IWRM indicators should be **open-ended & flexible** to accommodate new priority issues & delete obsolete ones.

III – USEFUL TO POLICY MAKERS

1. RELEVANCE:

The IWRM indicator should provide information to meet stakeholders needs. It should be meaningful in the context of IWRM issues, stated goals & objectives.

2. UNDERSTANDABLE:

The IWRM indicator should be simple, unambiguous & easy to interpret.

3. LIMITED IN NUMBER:

IWRM indicators should be limited in number.

4. POTENTIAL FOR BENCHMARKING:

IWRM indicators should provide a basis for regional and/or international comparisons & benchmarking.



SOME PROPOSED INDICATORS FOR TESTING IWRM IMPLEMENTATION

1st INDICATOR: IWRM IN NATIONAL WATER POLICY

The core principles of IWRM relating to social equity, environment & economics are included in national water policy either explicitly or implicitly

1. Does IWRM exist in National water policies?
2. Reference to IWRM as a base for water resources management
3. Reference to the role of private sector
4. Reference to polluter pays principle
5. Reference to user pays principle
6. Reference to Climate Change adaptation

2nd INDICATOR: IWRM Reflected in National Water Legislations

1. Existence of specific water code or law
2. Specific obligations by law for public hearings, stakeholder participation, river basin management, decentralization, etc
3. Incentives for water efficiency
4. Penalties for illegal withdrawals and pollution of water resources

3rd Indicators: Regulations Supporting the Water Law

1. Effectiveness of existing regulations
2. Awareness on the regulations
3. Monitoring & inspection capacities
4. Institutional capacity for enforcement
5. Harmonization of water law with other laws (environmental, health, etc.)
6. harmonization with international agreements

4th INDICATOR: Institutional Framework

1. Existence of cross-sectoral coordination body at the national, local and river-basin levels
2. Cross-sectoral coordination body is functional

5TH indicator: Institutional Capacity for undertaking IWRM

1. Institutional capacity to formulate water policies
2. Institutional capacity for drafting legislations
3. Institutional capacity to recover cost of service
4. Information systems and data processing
5. Capacity to undertake water-related assessments
6. Capacity to monitor water-related issues
7. Capacity for planning water use and conservation

6th INDICATOR: Adequacy of human resources to handle IWRM

1. Number of available staff
2. Qualification of the available staff
3. Number of senior management personnel acquainted with IWRM
4. Staff motivation to implement IWRM
5. Training in IWRM

7th INDICATOR: Level of awareness of IWRM among different stakeholders

1. Politicians and senior officials
2. water management staff
3. water users
4. NGOs
5. Legislators (Parliamentarians)

8th INDICATOR: IWRM in national budgets

1. Does the national budget contains budget lines for planned expenditures that support the application of IWRM?

9th INDICATOR: Gender mainstreaming

1. Is the role of women in water management supported by law

10th INDICATOR: Stakeholder involvement

1. Formal framework/mechanisms for stakeholder participation is established
2. Framework is functional

AGREGATION TO DEVELOP AN IWRM INDEX

1. The score of each indicator is summed up to reflect the existing level of IWRM implementation.
2. The total sum of all scores of the proposed IWRM indicators is an index of the level of success in implementing IWRM concepts in a country.
3. If IWRM indicators are harmonized among countries of the region, the index can be used for regional benchmarking.

مع خالص شكري
وامتناني

Thank you
for your attention

Merci pour
votre attention



*For additional information please contact:
Sustainable Water Integrated Management – Support Mechanism: info@swim-sm.eu*