WATER FRAMEWORK DIRECTIVE AND ITS RELATIONSHIP WITH RIVER BASIN MANAGEMENT PLAN

Statistical, Economic and Social Research and Training Centre for Islamic Countries
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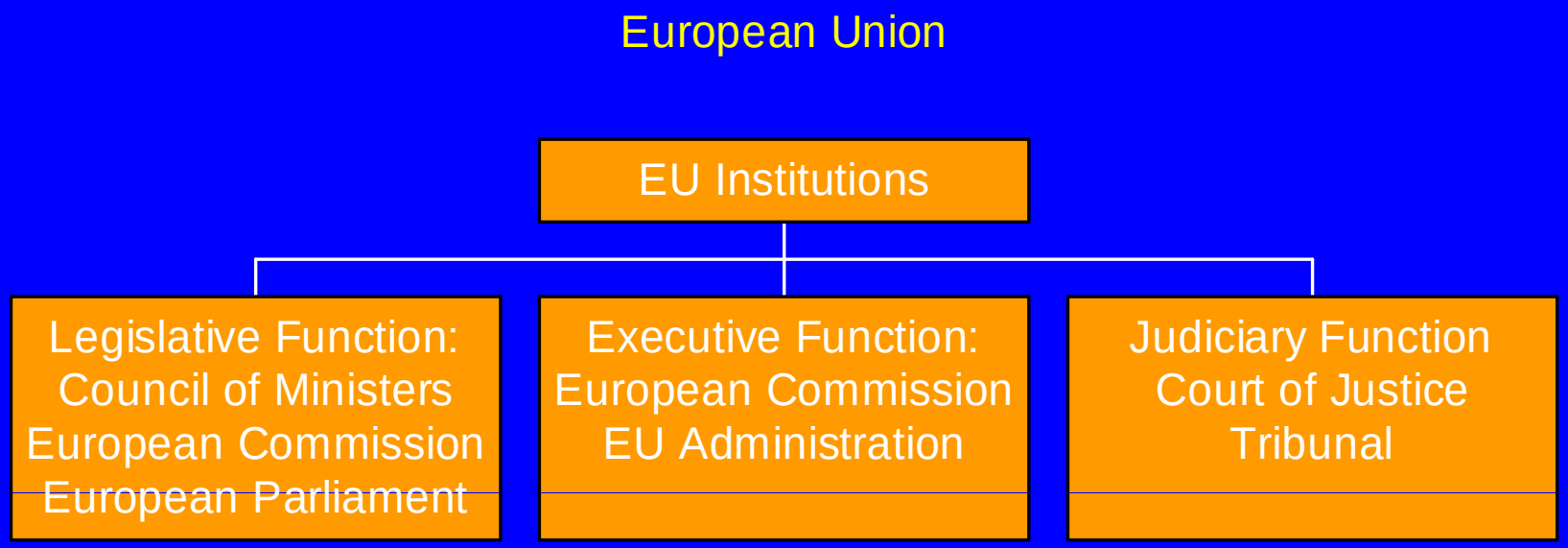


EU Directives

- Instructions to (National) Governments
  - Local governments may implement
- Establishment adaptation, harmonization of (national) legislation
- Within a predefined period of time
- Flexible implementation but through legislation!
- No direct legal consequences for citizens
  - Legal consequences may emanate in case of deficient implementation
- Framework Directive
  - Cluster of comprehensive directives and subsequent regulations

Objectives EU Water Framework Directive (art. 1)

- EU-wide approach to water management
  - Harmonization, unification, co-ordination
- Good water status within 15 years
- Prevention of further deterioration
- Promotion of sustainable use
- Protection and improvement of aquatic environment through measures
  - Reduction of emissions of priority substances
    - Indication through EWFD
  - Cessation of emissions of priority hazardous substances
    - Already indicated by other EU Directive

Good surface water status

- Good status of surface water:
  - Good ecological status for ‘natural water bodies’
  - Good ecological potential for ‘heavily modified and artificial water bodies’
  - Good chemical status (for both)
  - Priority substances contained (for both)
    - Stand-still principle
  - Priority “hazardous” substances reduced (for both)

Good groundwater status

- Good status of groundwater
  - Good quality in general
  - Specific quality for drinking water
  - Sufficient recharge
  - Sanitation of polluted aquifers
  - Standards for quality given by existing regulations and directives

Programme of measures (art. 11)

- Water quality and quantity of surface and groundwater through EWFD
- Existing EU obligations
  - Required by other regulations or directives e.g. hazardous substances, drinking water quality and more stringent than EWFD
- Basic measures: package to reach good quality in 2015
  - Timeframe: start 2009
- Supplementary (extra) measures
  - Shortfalls for water bodies at risk
- Additional measures
- (through international agreements)

EU Instruments of Governance

- River Basin Districts (RBD)
- Programme of Measures
- Integrated RBD Management Plan
- Public participation approaches
- Other EU regulations and directives
- Benefit sharing concepts

Policy instruments (specific)

- Legislation and enforcement
- Combined approaches
  - Point and non-point sources
- Planning and co-ordination
  - Plan development
  - Public participation
- Economic and tax instruments
- Designation and zoning
  - Conservation and protection areas
  - Spatial planning

General legal instruments (surface, ground, (non)point)

- Regulations
  - Instructions: to do!
  - Prohibitions: not to do!
- Penalties, enforcement and and sanctions
- Comprehensive set of standards
  - Emission, water quality
  - Biological, chemical, ecological
  - Production and product standards
- System of rights or licenses
  - Discharge permits
  - Water use, bank use licenses
- System of taxes or charges

Instruments of enforcement (general)

- Administrative force (adm.)
- Penal sum, fine, penalty, damages (adm.)
- License withdrawal or withholding (adm.)
- Closure (adm. and penal)
- Punitive actions (penal)
  - Imprisonment
  - Penalties
  - Removal of advantage

Physical interventions for surface water quality

- Infrastructure development
  - Sewerage construction
- Bank, bed, canal manipulation
  - Width, depth, flow regulation
  - Creation of passages (fish)
- Operation and maintenance measures
  - Water level
  - Cleaning
- Treatment of water pollutants
- Dilution and mixing arrangements
- Others

Additional measures

- Environmental reporting
  - EIA
- Codes of good practices
  - System of benchmarks
- Voluntary agreements
  - Individual or sector
- Awareness creation campaigns
- Advisory programmes to sectors
  - Agriculture, industry etc.
    - Extension on environmental protection

Non-point sources

- Designation or zoning
  - Land use
- System of incentives
  - Organic, biological, ecological farming or production
- Penalties and charges
  - On fertilizer, pesticide use
- Product standards
  - Production of products
  - Use of products
  - Removal, clearing of products
- Soil sanitation and artificial filtering
- Dilution, recharge, level control and others

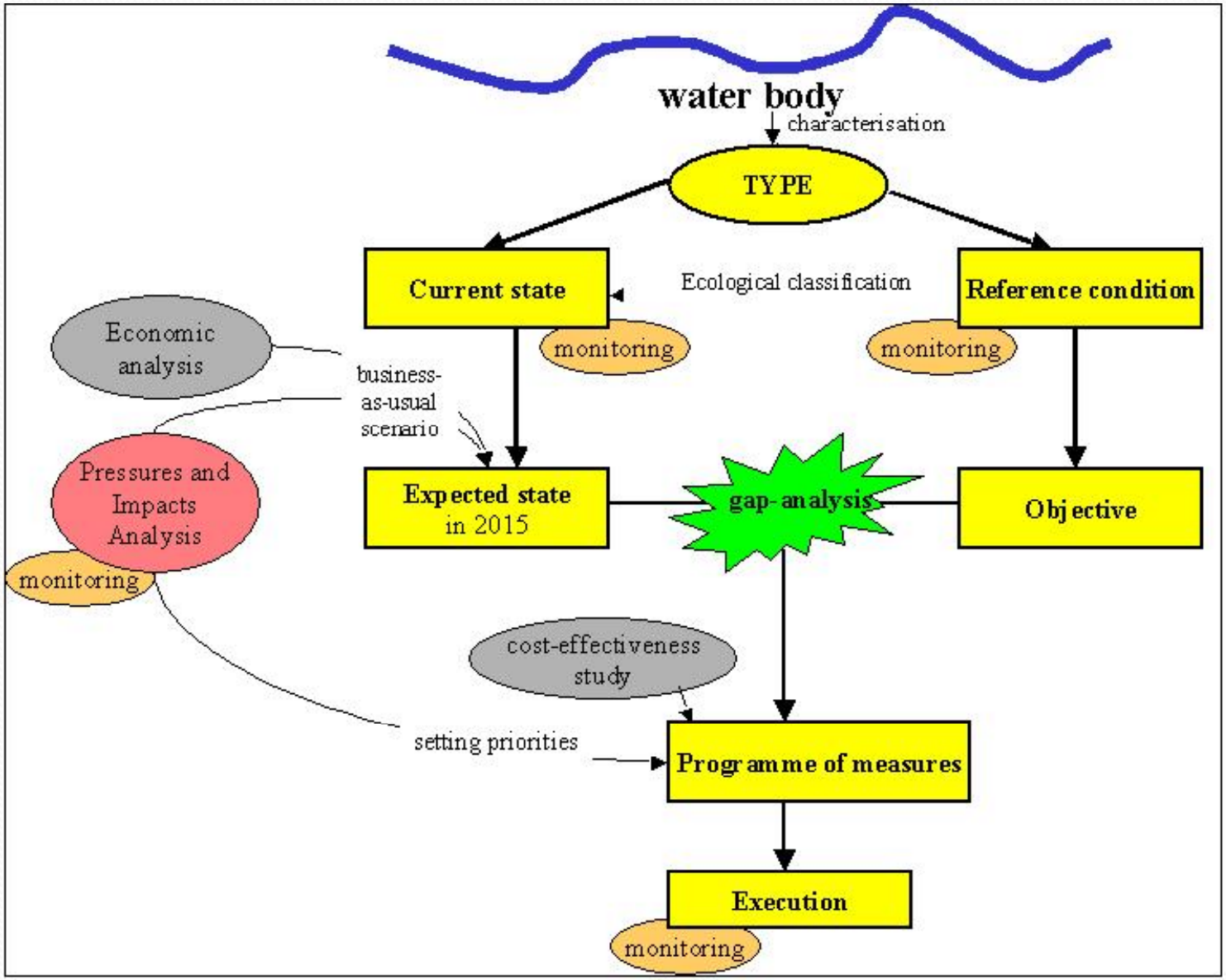
Actions within River Basin District (article 6-10)

- Demarcation of River Basin Districts
- Characteristics of the River Basin Districts
  - Classification, typology (hydrology, morphology, chemistry, ecology, biology)
- Human impacts and pressures identification and analysis
- Economic analysis of water use
  - Present use
  - Future measures valuation
- Creating register of protected areas

Actions within River Basin District (article 6-10)

- Identification of abstractions of drinking water
- Monitoring of surface/groundwater status and protected areas
- Introduce cost recovery mechanisms
- Combined approach for point and diffuse sources
- Planning
  - RBM Plan
- Measures
  - Programme of Measures

Implementation steps



Planning issues

- Complexity
- Timing and time scales
  - Acceding countries
- International river issues
- Interdependency of sub-activities
- Inflexibility
  - Process approach versus end-product approach
  - Public participation not taken serious!
    - Communication and consultation only
- Toolbox and data availability
- Capacity building

Characterization

- First characterization
  - Natural waters (System 1)
  - Artificial or heavily modified waters (System 2)
- Classification
- Typology
- Reference conditions for surface waters
  - System natural waters (2 ambition levels)
    - Very good status: nearly undisturbed
    - Good status: slight shortfall
  - System HMWB (2 ambition levels)
    - Maximum ecological potential
    - Good ecological potential

Reference conditions

- System 1: very good status: nearly undisturbed
  - Reference data
  - Models
  - Paleo data
  - Expert opinions
- System 2: maximum ecological potential
  - Hydro-morphologic restriction
  - Economic derogation (practicability)

Reference conditions

- Chemical and hydro-morphological characteristics
- Biological evaluation parameters
  - Phyto-plankton, macrophytes, fish, benthic invertebrates!!
- Reference network
  - Each surface water body type
  - Each quality element
  - Determination of ecological quality ratio
- Inter-calibration of ecological status
  - Boundaries high, good, moderate
    - Pilot site selection and analysis

Protected areas

- Drink water winning
- Economically significant aquatic species
- Recreational waters
- Nutrient sensitive areas
- Species habitat protection areas
- Other indicated by other directives, conventions etc.

Economic analysis

- Economic analysis on present water uses
- Baseline scenario economic development (trends)
- Assessment of cost recovery and water services pricing
- Cost effectiveness of measures
- Completing knowledge gaps
- Identification of significant water issues (2007, year 5)

River basin (district) management plan (Annex VII: detailed outputs in summary)

1. Demarcation of River Basin District
2. Characteristics of River Basin District
3. Summary of significant pressures and impacts human activity
4. Identification and mapping of protected areas
5. Map of monitoring networks
6. List of environmental objectives
7. Summary of economic analysis

River basin (district) management plan (continued)

8. Summary of Programme of Measures
9. Register of more detailed programmes including summary
10. Summary of public information and consultation on measures and results
11. List of competent authorities
12. Contact points and procedures for obtaining background info and comments from the public

Integration: Key-concept of the EUWFD

- Multi-sectoral approach and co-ordination
  - Land, atmosphere, biosphere
- Multi-disciplinary perspective
  - Integration of land, water and air
  - Integration of technical, behavioral, gamma sciences
- Holistic and cross-cutting integrating approach
- International harmonization and balance
- Intergenerational sustainability
  - Integration in time
- In summary: integration in space, interest, time, law and administration

Integration: Key-concept of the EUWFD

- Legal and administrative integration
  - ‘Framework Directive’ enabling other directives and regulations
  - River Basin District chosen as logical unit of management
  - Unification and harmonization of national water management legislation
  - International harmonization and integration
- Hydrological cycle managed as a whole
  - Surface and subsurface water
  - Coastal and transitional waters
- Water quality, quantity and aquatic environment
  - Ecological and environmental objectives

THANK YOU FOR YOUR ATTENTION…