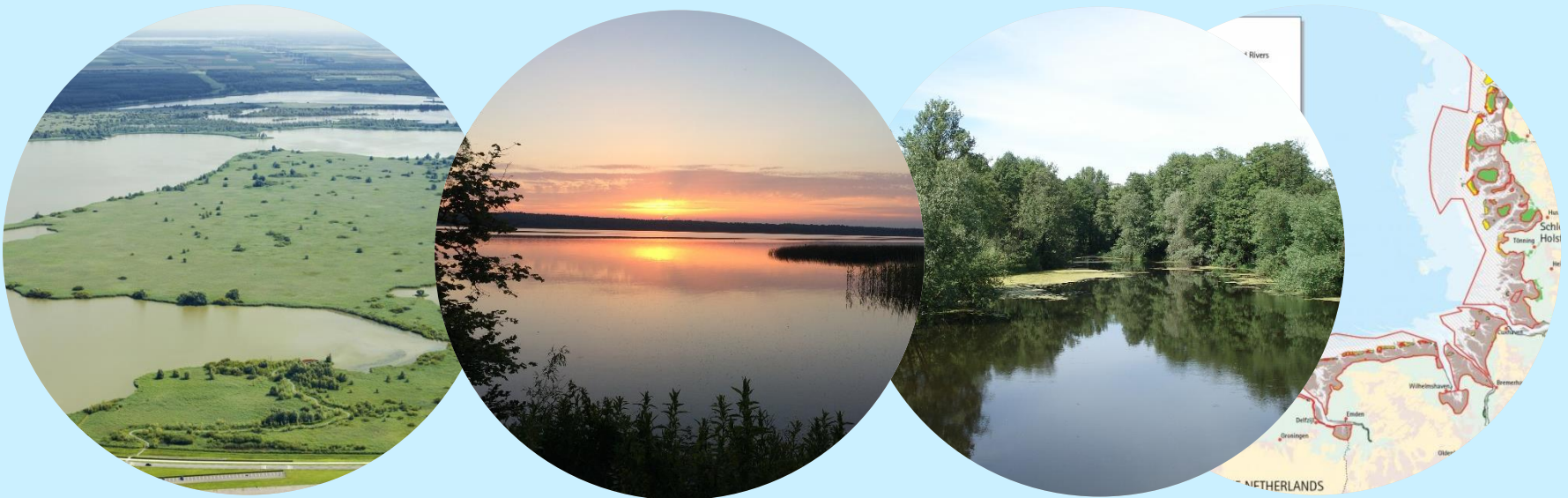


Forest Management and the EU Acquis

With a focus on the EU-WFD and EU Habitats Directive

Henk Zingstra

Wetlands International – European Association



Subjects of the Presentation

EU Water Framework
Directive and Forest
Management

EU Habitats Directive
and Forest
Management



New EU Policies

European Green Deal

- EU Biodiversity Strategy
- Farm to Fork Strategy
- Upcoming; New EU Forest Strategy
- plus Guidelines for Close to Nature Management



The importance of forests



Provisioning Services

- Wood, fuel, fibers, clean water



Regulating services

- CLIMATE MITIGATION AND ADAPTATION, clean air, noise



Cultural services

- Recreation, health, spiritual, educational

Supporting services: BIODIVERSITY, soil, nutrients

River Basin and River Basin Districts

River Basin

The area of land from which all surface run-off flows through a sequence of streams, rivers and, possibly, lakes into the sea at a single river mouth, estuary or delta. <https://www.eea.europa.eu/themes/water/wise-help-centre/glossary-definitions/river-basin>



Map of the extended Drin Basin

An area of land that contains a common set of streams and rivers that all drain into a single larger water body of water such as a river, a lake or an ocean

A River Basin District (RBDs) or sub-basin is the main unit for the management of river basins

EU Water Framework Directive

- Adopted in 2000 as the primary EU legislation on IWRM
- Calls for an integrated management of water and land in ***river basins***
- Overall aim is to achieve “good ecological status” of all water bodies by 2027
- Good status means ecological, physical and chemical; reference situation.
- Requires a systematic analyses of all pressures on water bodies
- Requires the design of programme of measures to address key pressures
- Promotes recovery costs for water services- to promote efficient water use.
- Requires stakeholder involvement in the planning process
- Requirement to coordinate with basin countries



Integrated Water Resources Management

IWRM is based on the understanding that water resources are an integral component of the ecosystem, a natural resource, and a social and economic good.



Water Framework Directive

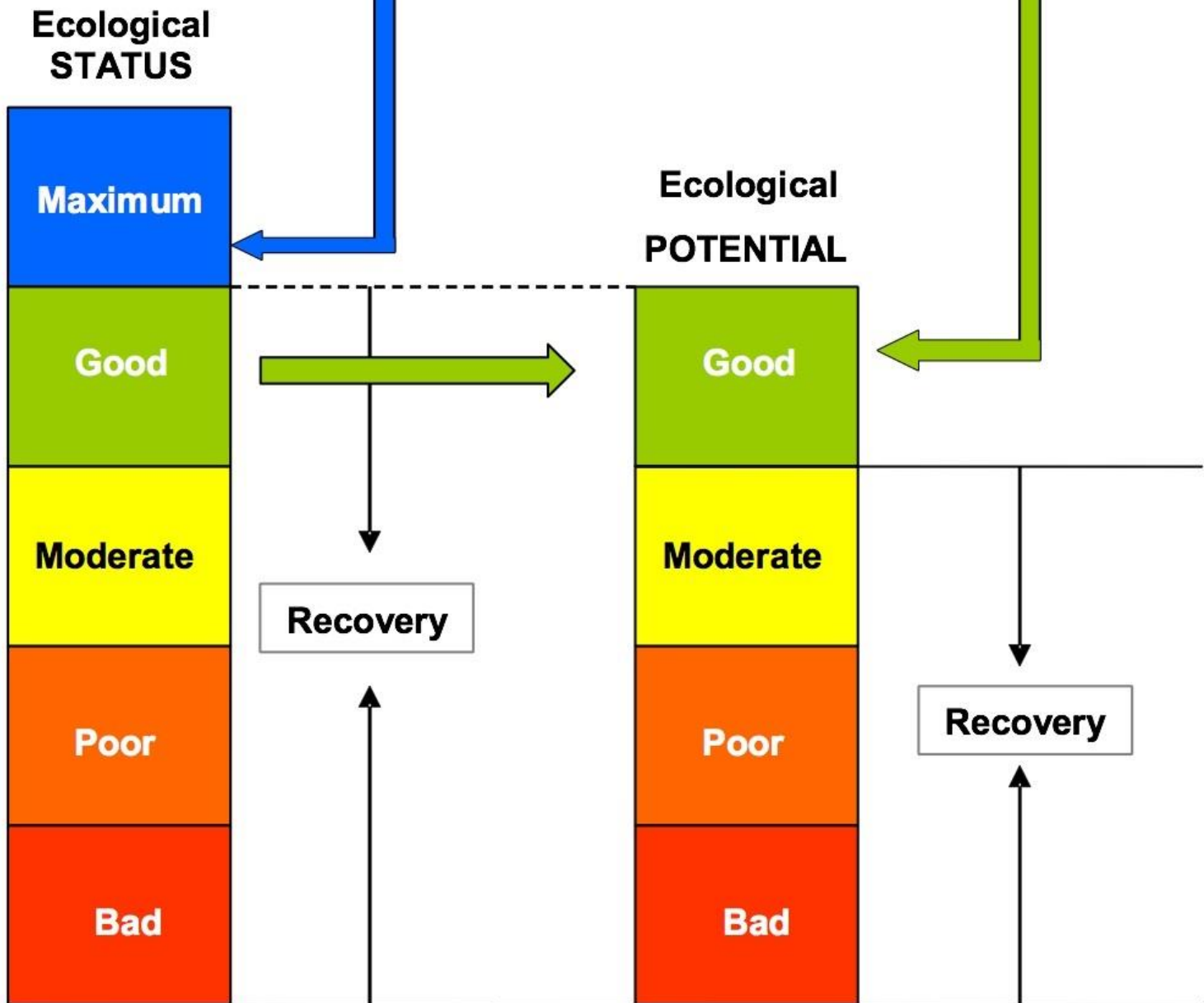
The IRBM plan must include the results of the obligatory basin analysis: river basin's characteristics, review of impact of human activity on the status of waters, estimation of the effect of existing legislation and the remaining "gap" to meeting the objectives; and a set of measures designed to fill the gap, as well as the economic analysis of water use within the river basin.

The plans must also include a register with protected areas incl. nationally protected areas, Natura 2000 sites, Ramsar sites and other sensitive nature areas. The plans must take account of the objectives for the areas.



Recovery objectives
for natural aquatic
ecosystems

Recovery objectives for
artificial or highly modified
aquatic ecosystems



Role of Forests in Sustainable River Basin Management

Vital role of sustainable forest management in protecting water quality

Protective functions of forests for water and soil. (soil stabilization; reduced sedimentation in water courses)

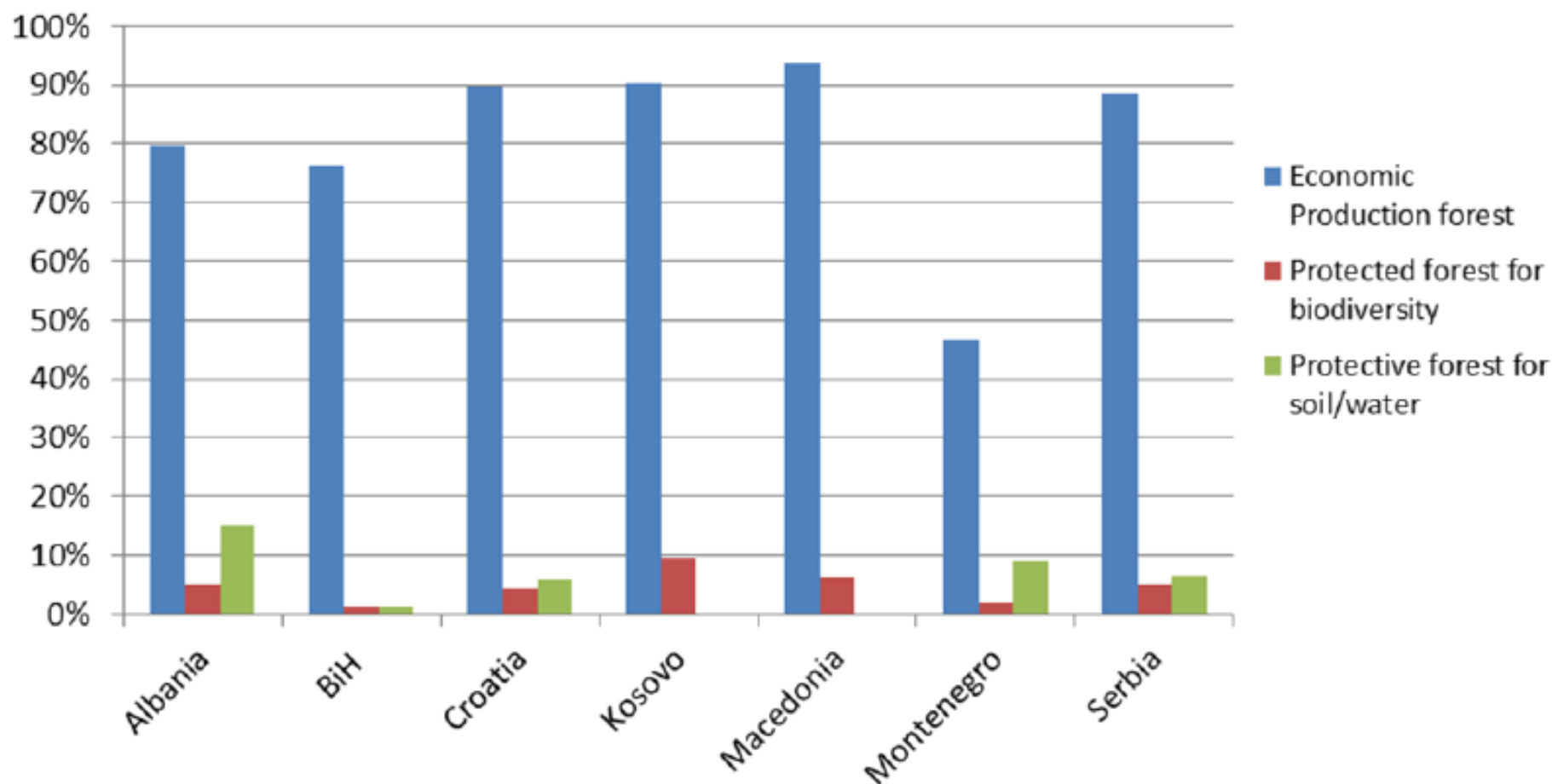
Forests protect the storage capacities of water bodies and the discharge capacities of watercourses by trapping sediments and pollutants from up-slope land use activities.

Forests may influence the timing of water discharge by maintaining and manipulating soil infiltration, groundwater recharge and the soil's water-storage capacity. (intercepting precipitation, evaporating water, transpiring water from soils).

Forests increase the robustness of the hydrology of a river basin making the system more resilient to the impacts of climate change.

Restoration of degraded forests, particularly in floodplains and upper watershed areas will improve the hydrology, reduce floods, and protect biodiversity and soils

Indirectly forests support sustainable water management by mitigating climate change impacts and thus reducing the stress on water systems



³ For Montenegro, figures for production, protection and protective forest is for the State owned forest area only, while the column with other forest cover includes the privately owned forest area.

Issues between Forest and Water Management Sector

Characterized by the absence of dialog

Inappropriate management of protective forests

Obligation of forestry sector for paying drainage tax

Forests delimitation problem between forestry and water sector

Construction of (hydro power) dams with harmful impacts on forest ecosystems.

Disrespect of needs and interests of forests in water regime regulation and protection of water course and water accumulations

Lack of cooperation on planning of infrastructural facilities (roads and bridges)

Incompatibilities of Law on Forests and Law on Waters



Needs and opportunities for cooperation

Coordinate planning, management and protection of water basins including reservoirs for hydropower plants and rehabilitation of degraded areas around water basins

Coordinate efforts for erosion control and flood prevention, including joint development of measures for management of steep slopes to prevent erosion, counteract clear-cutting and/or illegal logging along water resources and protective forests for soil and water;

Explore the idea of "Payment for Ecosystem Services" as a tool for supporting the forestry sector, as well creating awareness of financial benefits of good forest practice for sustainable water resources management, including funding of multi-functionality of forests;

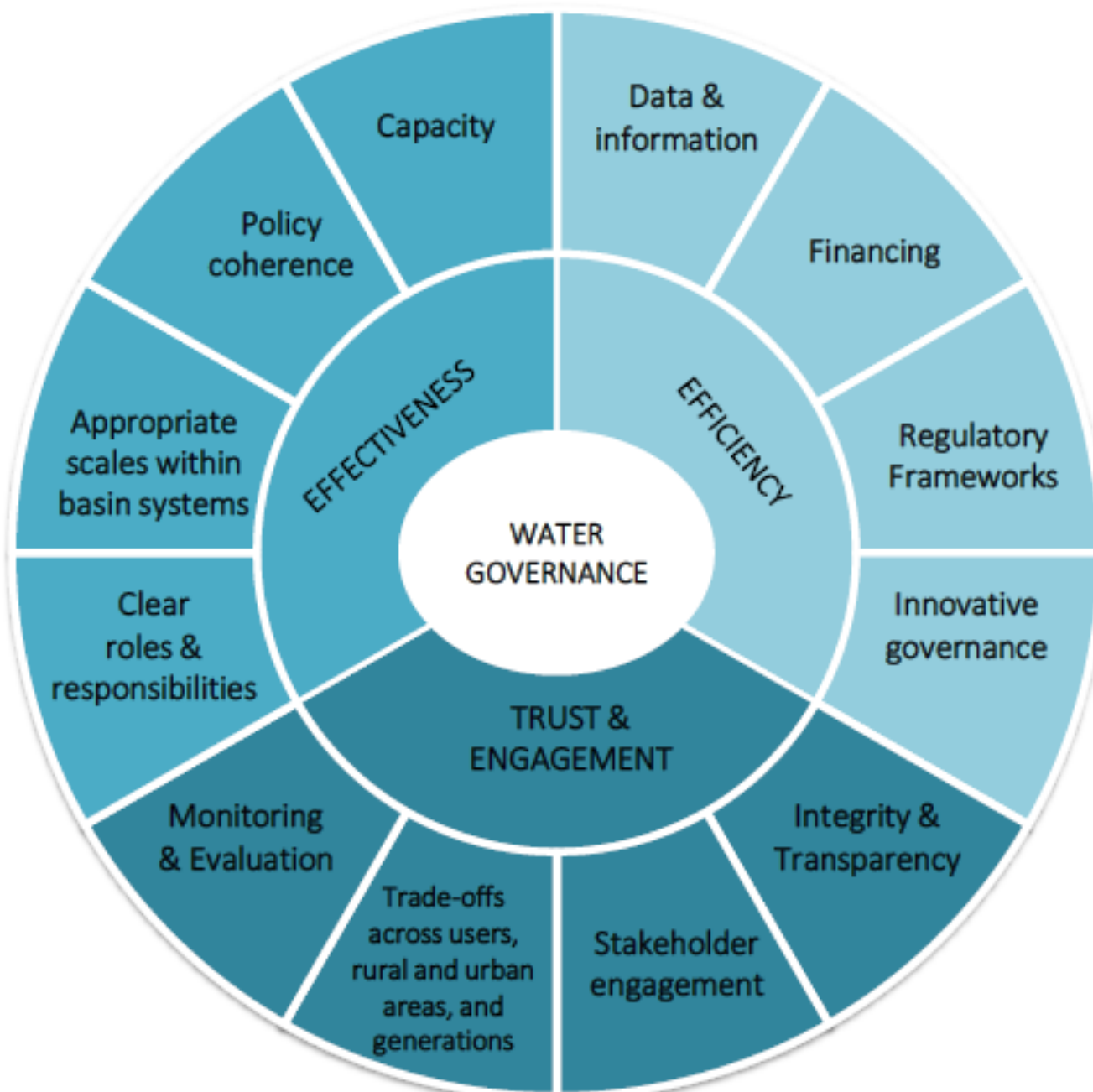
Coordinate monitoring programmes, particularly on assessment of ecological status and classification of water quality, use of natural resources and protection of biodiversity, including cooperation related to the use of forest springs and other water sources

Water Governance

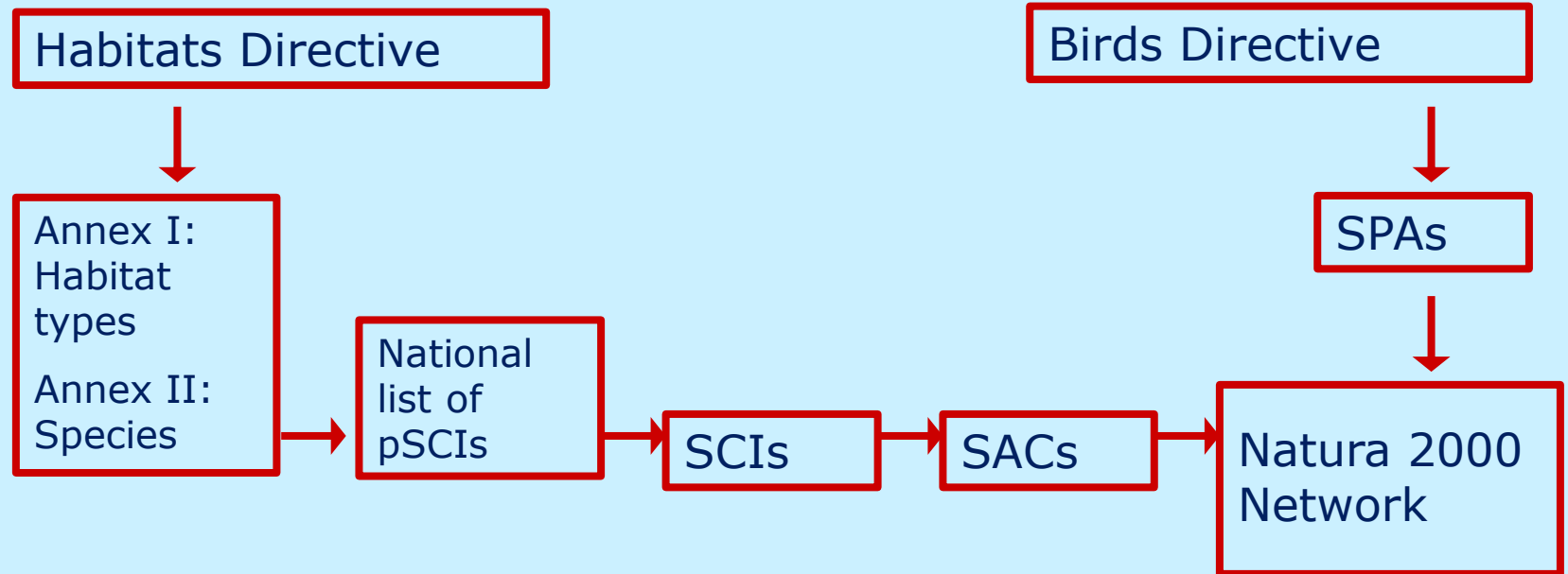
- **Water governance** can be described as a range of political, social, economic and administrative systems that are in place to develop and manage water resources and to organise the delivery of water services, at different levels of society (Global Water Partnership (2002))
- **Water governance** is the set of rules, practices, and processes (formal and informal) through which decisions for the management of water resources and services are taken and implemented, stakeholders articulate their interest and decision-makers are held accountable (OECD, 2015a).



Overview of OECD Principles on Water Governance



Design of Natura 2000 Network



SPAs: *Special Protection Areas*

SCIs: *Sites of Community Interest*

SAC: *Special Areas of Conservation*

Interpretation Manual of European Union Habitats EUR27

Interpretation

A common short description of each habitat type

Information on structures and functions (abiotic factors such as soil, water, structures, etc.)

List of typical species – flora and fauna

Reference to other classification systems



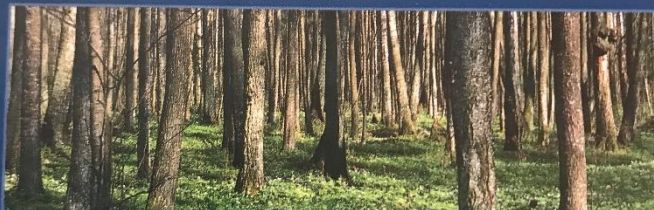
INTERPRETATION MANUAL OF EUROPEAN UNION HABITATS

EUR 27

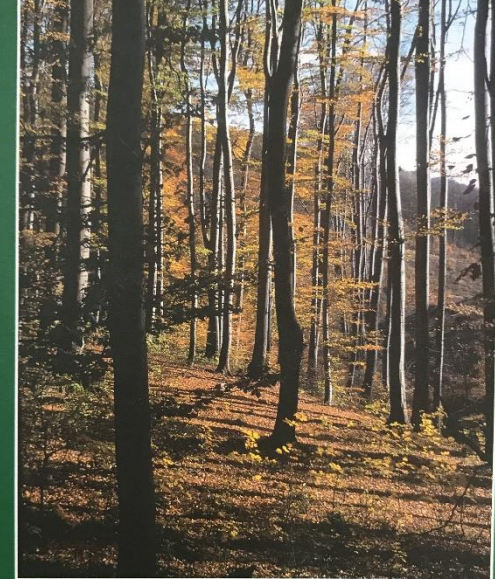
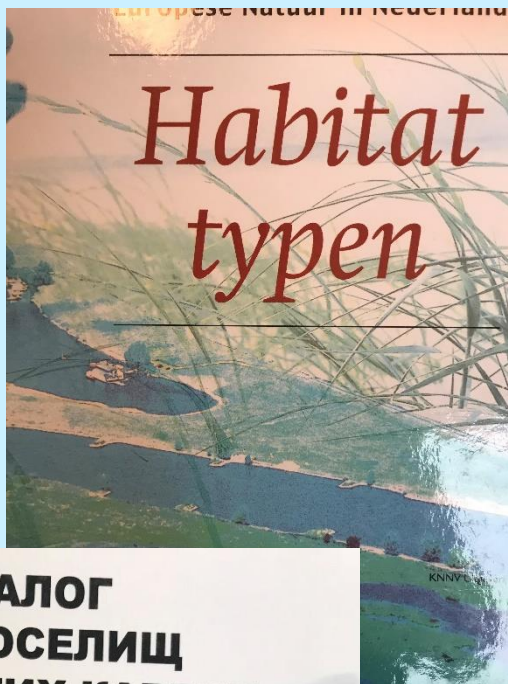
July 2007



EUROPINĖS SVARBOS BUVEINĖS LIETUVOJE

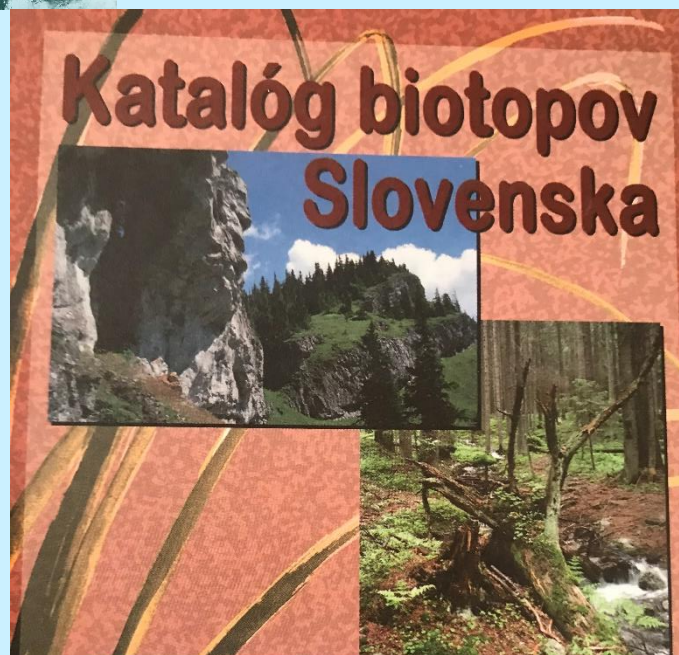
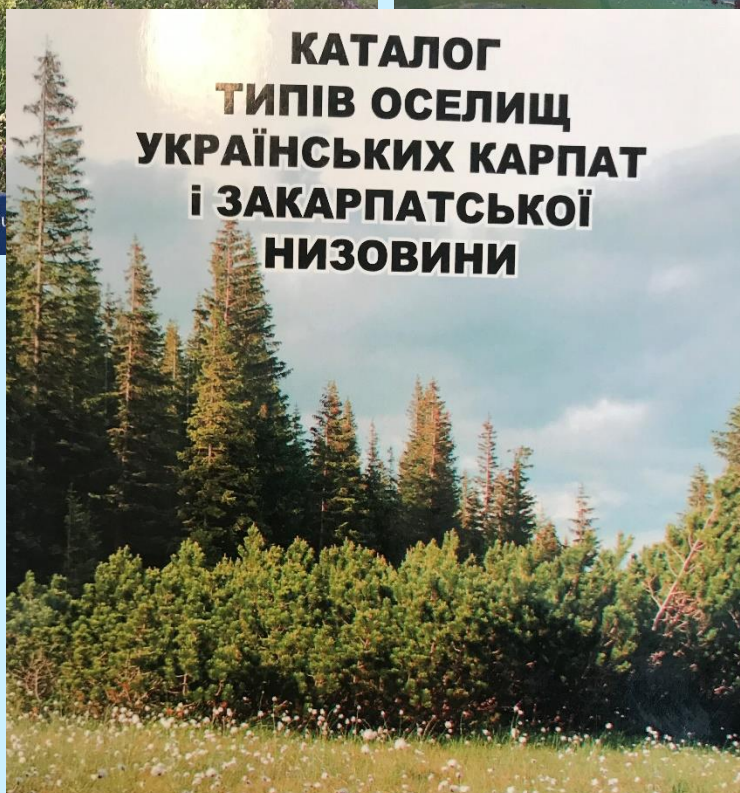


Lietuvoje aptinkamų E



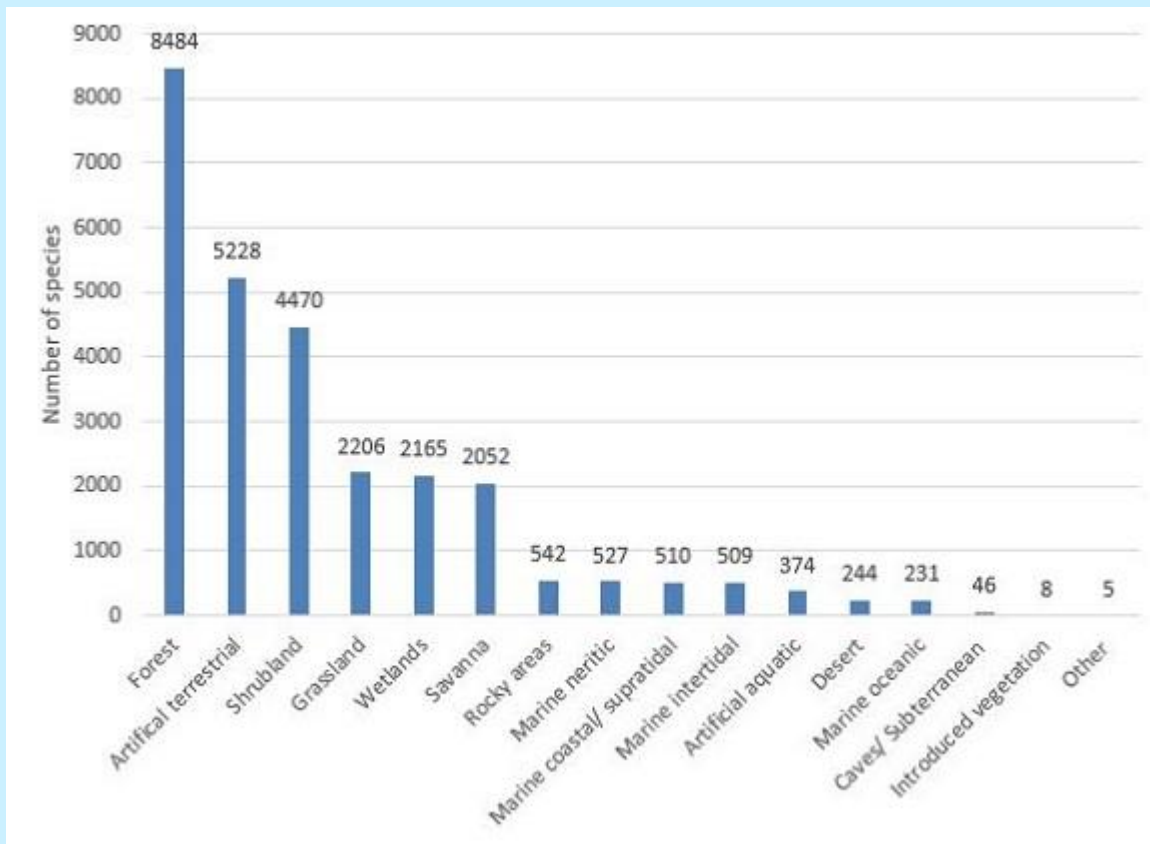
Európsky významné biotopy NA SLOVENSKU

КАТАЛОГ ТИПІВ ОСЕЛИЩ УКРАЇНСЬКИХ КАРПАТ і ЗАКАРПАТСЬКОЇ НИЗОВИНИ



Habitat Type

Plant and animal communities as the characterising elements of the biotic environment, together with abiotic factors (soil, climate, water availability and quality, and others), operating together at a particular scale. The term 'habitat type' is often used synonymously with 'ecosystem'.



Criteria for selecting sites eligible for identification as SCIs and Designation as SACs

Site assessment criteria for a given natural habitat type in Annex I

- Degree of representativity of the natural habitat type on the site.
- Area of the site covered by the natural habitat type in relation to the total area covered by that natural habitat type within national territory.
- Degree of conservation of the structure and functions of the natural habitat type concerned and restoration possibilities.
- Global assessment of the value of the site for conservation of the natural habitat type concerned.

Example of Site Selection in Croatia

WEB SERVICES/DATA PUBLISHED AND USED BY SINP

Desktop GIS, Web Map Applications

SINP Published Services (available to public in 2013):

- Protected Areas in Croatia
- Proposal of Natura 2000 sites in Croatia
- Habitat map of Croatia
- CRO Fauna - species findings/occurrences
- CRO Speleo - speleological objects

Used external services and data:

- Bio-geographical regions (Source: EEA)
- National Grid 1x1, 2x2, 10x10, 50x50, 100x100 (Source: EEA)
- DEM - altitude/aspect/slope (Source: SGA)
- Topographic map 1:100 000 (Source: SGA)
- Topographic map 1:25 000 (Source: SGA Geoportal WMS)
- Central register of spatial units (Source: SGA)
- DOF (Source: SGA Geoportal WMS)
- Croatian Base Map (Source: SGA Geoportal WMS)
- Digital cadastre (Source: SGA)

SHARING

The Habitats Directive

- 2.1 The aim of this Directive shall be to contribute towards ensuring bio-diversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States to which the Treaty applies.
- 2.2 Measures taken pursuant to this Directive shall be designed to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest.

Measures taken pursuant to this Directive shall take account of economic, social and cultural requirements and regional and local characteristics.

Climate change



Cascade of impacts on trees and forests

Trees physiology

- Growth
- Phenology
- Survival

Species distributions
& community composition

Ecosystem
functioning and services
(incl. carbon storing)

Emerging Challenges

Increased water scarcity and rising temperatures due to climate change

Increased demand for forest products due to economic development

Increased stress on the forest ecology



Thank you for listening

