IMPLEMENTATION OF THE RIVER BASIN MANAGEMENT PLAN THE MAIN TOOL TO TACKLE HAZARDOUS WATER POLLUTION IN ROMANIA

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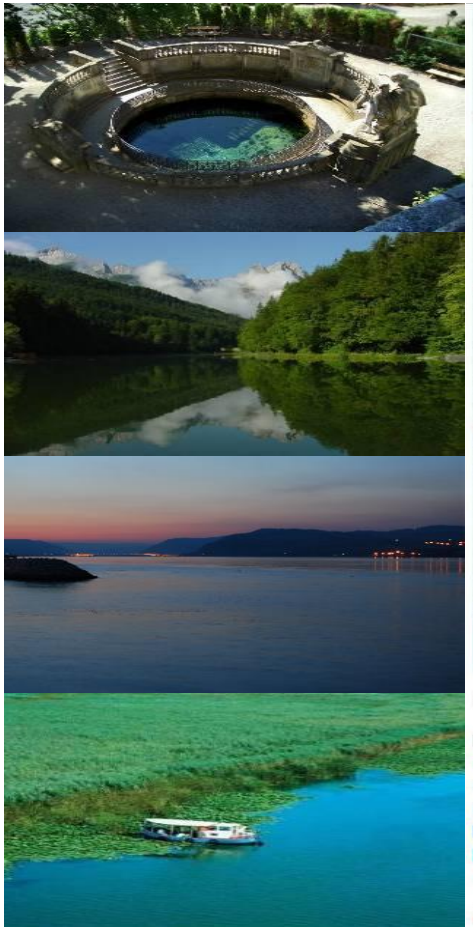
Danube River Basin

From the Black Forest to the Black Sea



Water Framework Directive

Ensure coordination of water environment policy and regulations across Europe to:

-Prevent deterioration and enhance status of aquatic ecosystems, including groundwater and coastal waters

-Promote sustainable water use

-**Reduce pollution**

-Contribute to the mitigation of floods and droughts

River Basin Management Plan is one of the core elements of the Water Framework Directive

Role of River Basin Planning

- Improve and support sustainable and integrated water management to deliver the requirements of the Water Framework Directive
- Provide a framework for developing institutional arrangements and coordination with other plans
- Provide opportunity for public participation and partnership activities
- Provide a framework for transparent decision making considering environmental, social and economic needs within the river basin district

RIVER BASIN PLANNING PROCESS

Monitoring of water bodies

Classify their status

Set objectives

Programmes of Measures

Implementation

Review performance

River Basin Management Plan

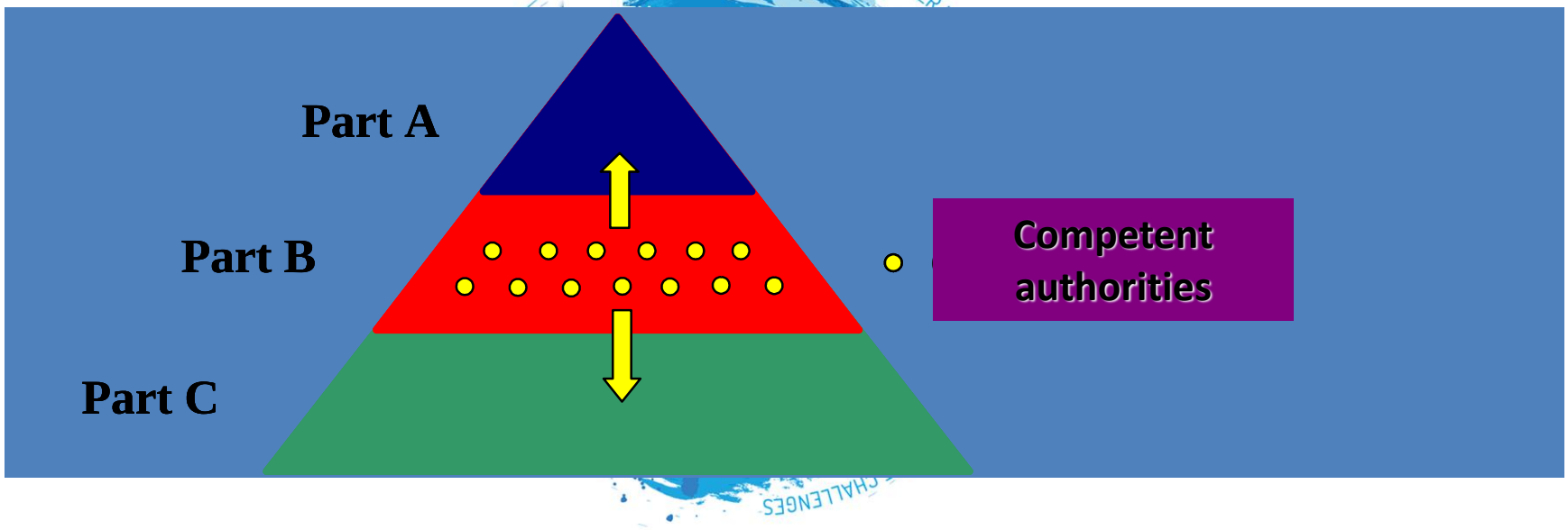
- **Characteristics of the District**
  - -pressures and impacts
  - -risk assessment based on water quality and quantity, aquatic environment and hidromorphology
  - -protected areas
  - -economic assessment of water services
- **Environmental objectives and timescale for achieving**
- **Program of measures to achieve objectives**
- **Monitoring networks and programmes**
- **Consultation and participation**

STRUCTURE OF THE DANUBE RIVER BASIN DISTRICT MANAGEMENT PLAN

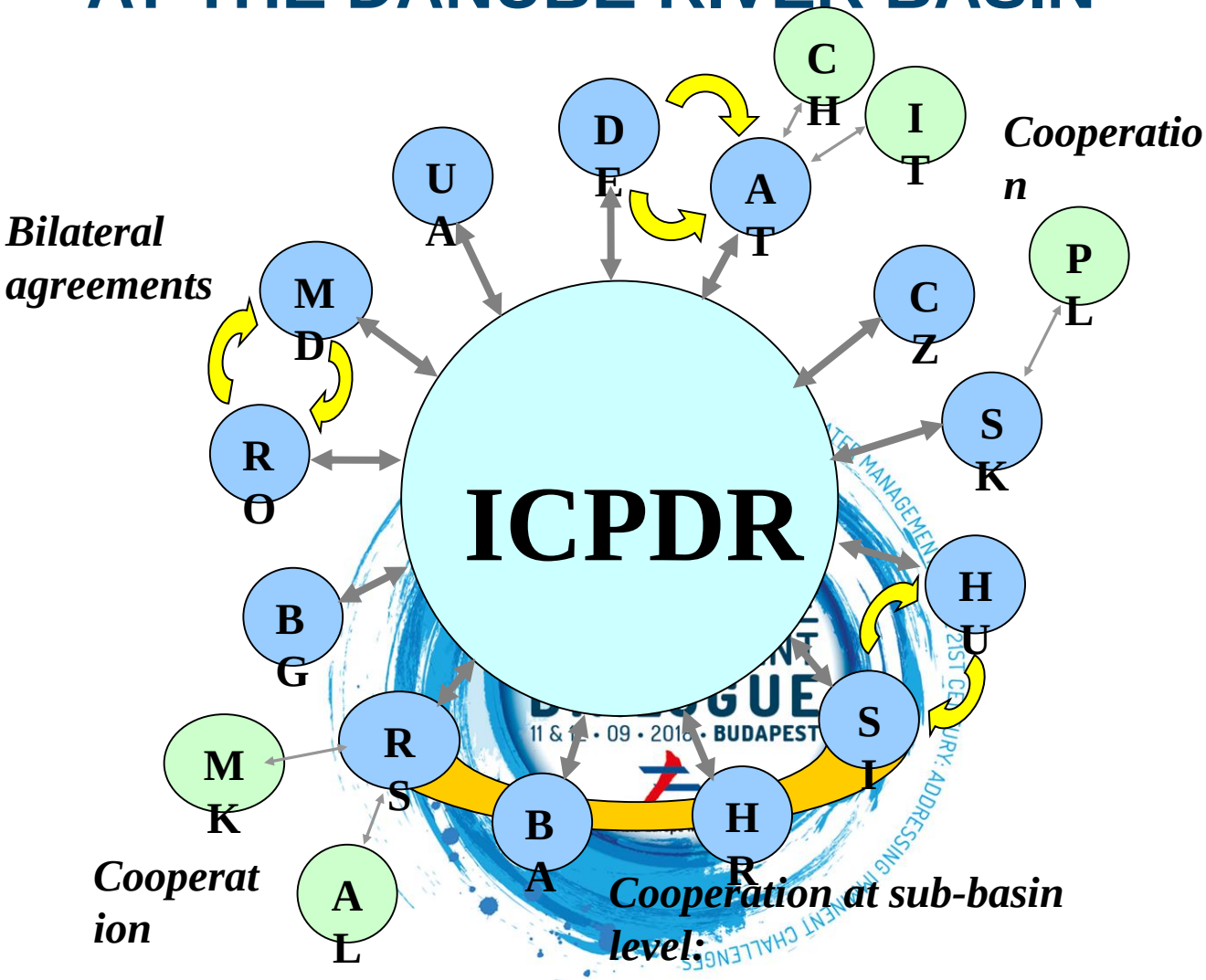
Part A – District (international) level

Part B – National level and/or internationally coordinated sub-basin level for selected sub-basins (Tisza, Sava, Prut, Danube Delta)

Part C –Sub-basin/sub-unit level (11 in Romania)



COORDINATION MECHANISM AT THE DANUBE RIVER BASIN



Significant Water Management Issues

Organic Pollution

Nutrient Pollution

Hazardous Substances Pollution

Hydromorphological Alterations

Danube River Basin District: Overview

MAP 1

LEGEND

- Danube River Basin District (DRBD)
- Danube River
- Tributaries (with catchment area > 4,000 km²)
- Lake water bodies (with surface area > 100 km²)
- Transitional water bodies
- Coastal water bodies
- Canals
- Competent authority
- National borders

Cities:

- 100,000 - 250,000 inhabitants
- 250,000 - 1,000,000 inhabitants
- > 1,000,000 inhabitants

0 50 100 200 Kilometers

Scale: 1 : 4,500,000

(Scale 1: 6,000,000 in A4 landscape paper format)

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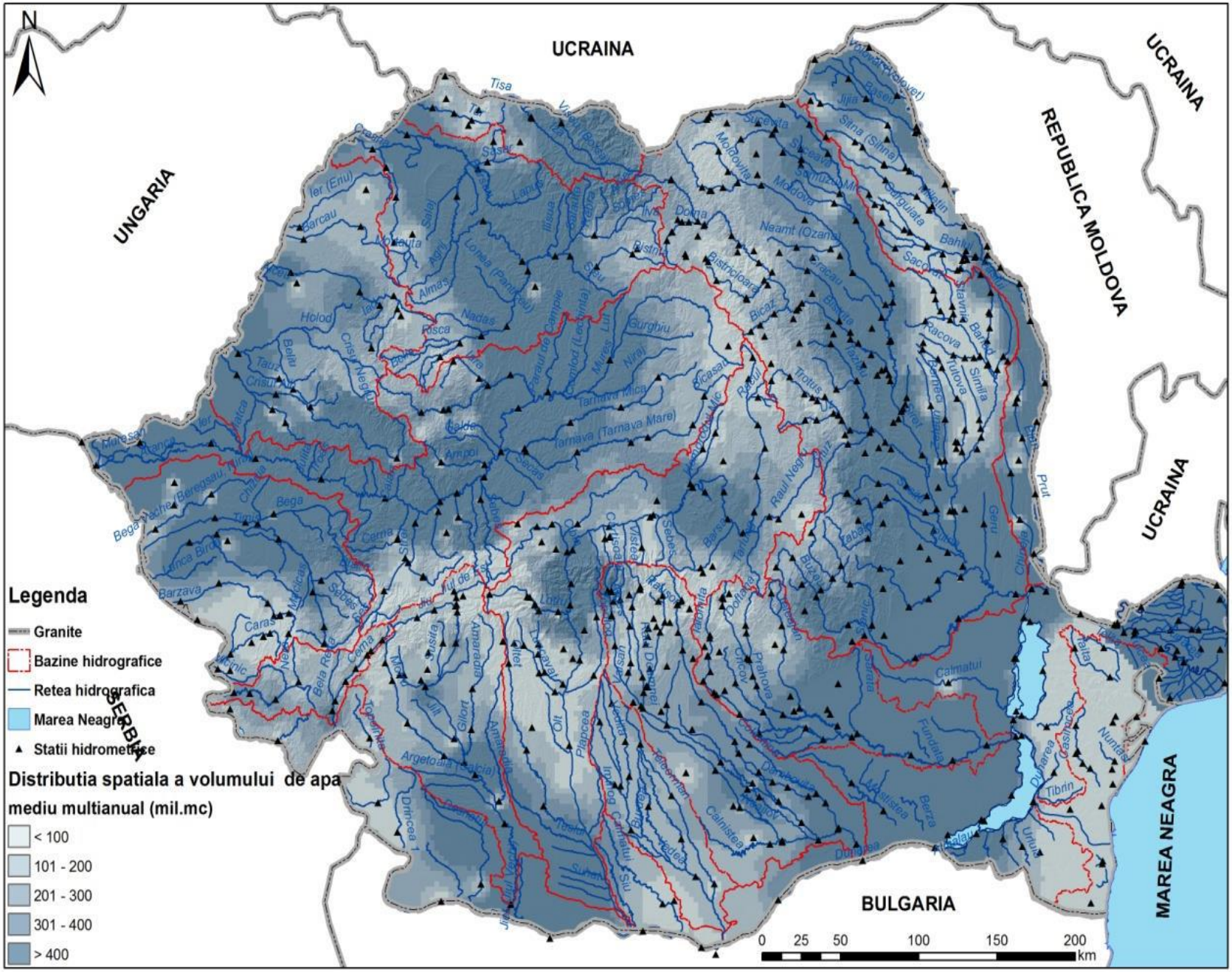
International Commission for the Protection of the Danube River
Internationale Kommission zum Schutz der Donau

This ICPDR product is based on national information provided by the Contracting Parties to the ICPDR (AT, BA, BG, CZ, DE, HR, HU, MD, RO, RS, SI, SK, UA) and CH, except for the following: EuroGlobalMap v2.1 from EuroGeographics was used for national borders of AT, CZ, DE, HR, HU, MD, RO, SI, SK and UA; ESRI data was used for national borders of AL, ME, MK; Shuttle Radar Topography Mission (SRTM) from USGS Seamless Data Distribution System was used as topographic layer; data from the European Commission (Joint Research Center) was used for the outer border of the DRBD of AL, IT, ME and PL.

Vienna, December 2009


N
UCRAINA
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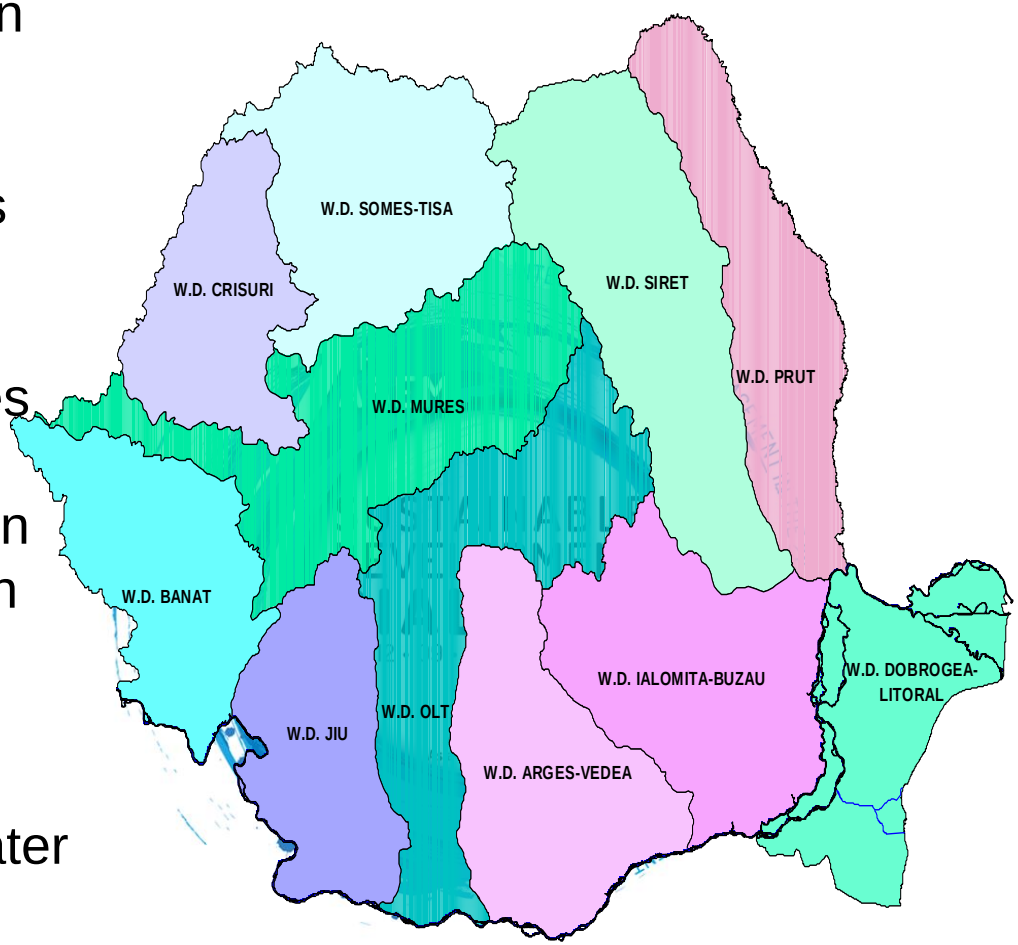
UNGARIA
SERBIA
BULGARIA
MAREA NEAGRA
Legenda
Granite
Bazine hidrografice
Retea hidrografica
Marea Neagra
Statii hidrometrice
Distributia spatiala a volumului de apa mediu multianual (mil.mc)
< 100
101 - 200
201 - 300
301 - 400
> 400
0 25 50 100 150 200
km

NATIONAL ADMINISTRATION "APELE ROMÂNE"

Basic management unit: river basin
11 river basins
11 river basin administrations

Activities:
-water resources management
-water protection against pollution
-flood control management
-application of international water agreements.



RIVER BASIN MANAGEMENT PLAN (RBMP)

RIVER BASIN MANAGEMENT PLAN

GOAL and OBJECTIVES

Setting of measures, actions, solutions and works for protection of surface and ground waters through:

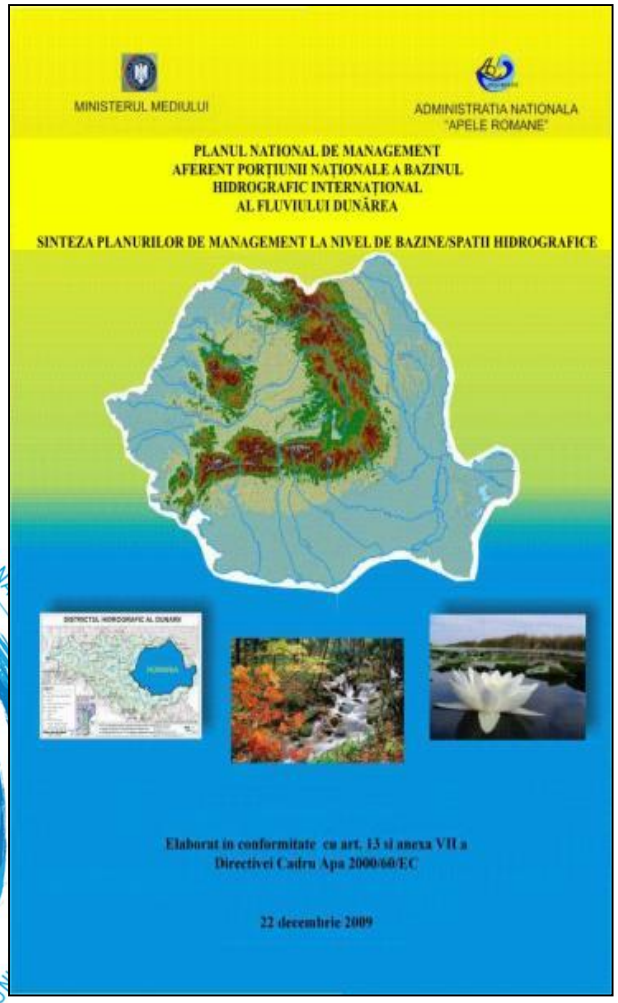
- prevention of further deterioration and reaching and maintaining of good status of aquatic ecosystems
- promotion of sustainable water use
- progressive reduction of pollution from priority substances and ceasing out of discharges, emissions and losses of priority hazardous substances
- progressive reduction of groundwater pollution and further
- pollution prevention

ELABORATION DEADLINE

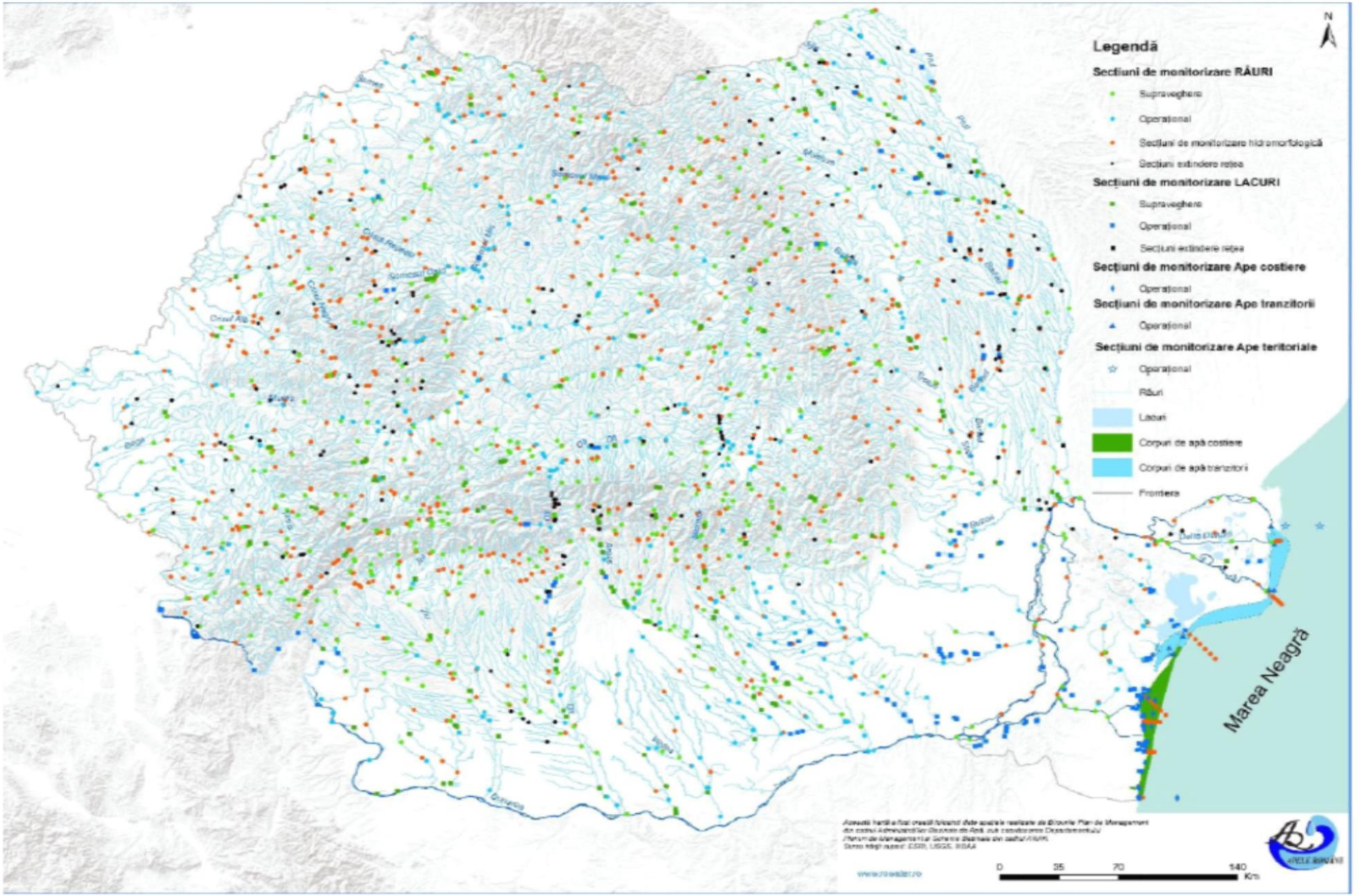
22 December 2009

UPDATE

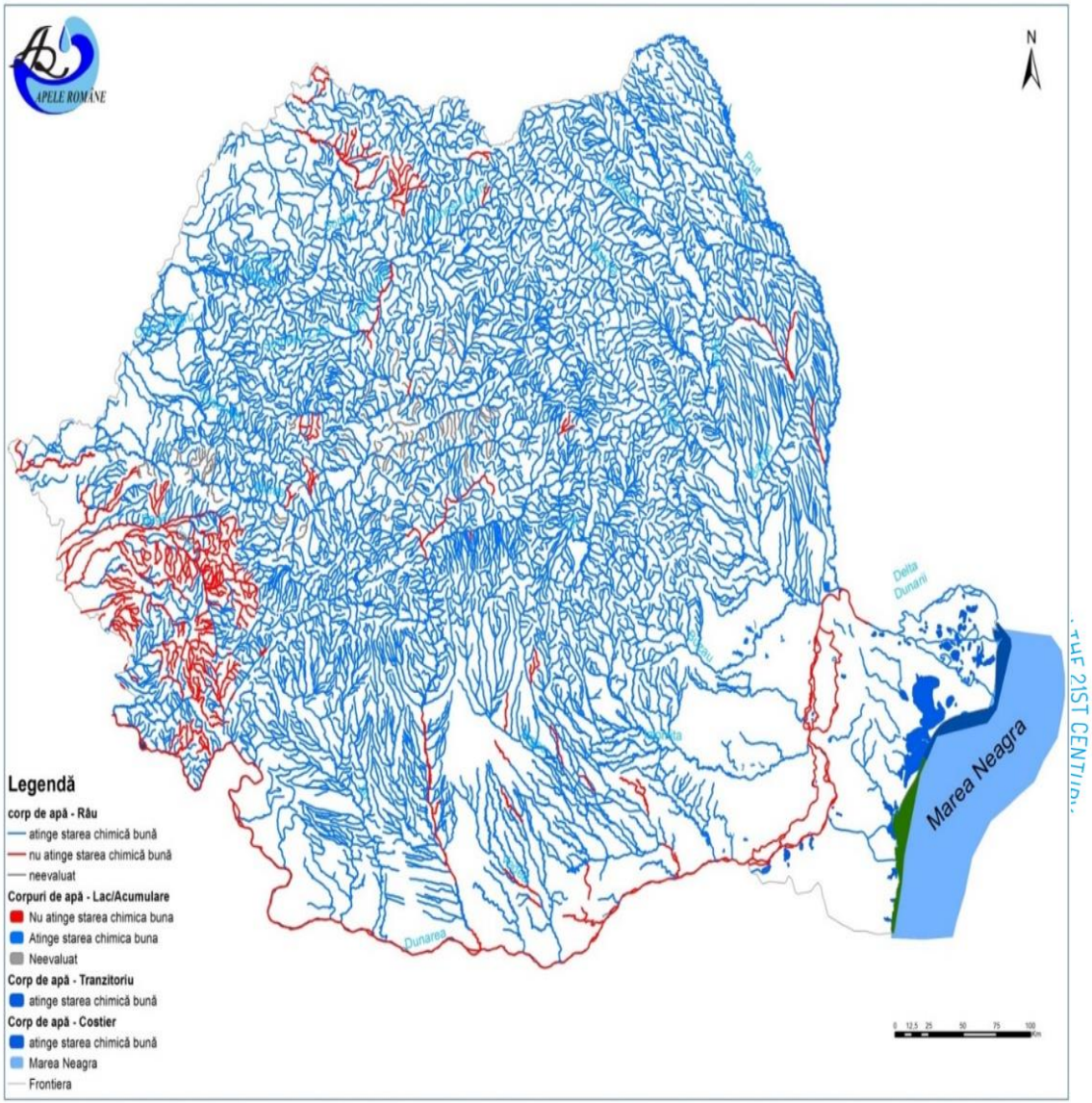
each 6 years



SURFACE WATERS MONITORING SISTEM



RESULTS: SWBS - CHEMICAL STATUS



- monitoring data from 2013 mainly, but also from 2009 - 2012;
- over 97% of SWBs assessed - 94% in GCS;
- comparing with 1st RBMP: the percentage of SWBs in GCS has increased with 1,2 %;
- trend analysis of concentrations of priority substances in sediment showed decreasing trend

Chemical Status of Surface Water Bodies

LEGEND

- *Good status / high confidence*
- *Good status / medium confidence*
- *Good status / low confidence*
- *Good status / unknown confidence*
- *Failing good status / high confidence*
- *Failing good status / medium confidence*
- *Failing good status / low confidence*
- *Failing good status / unknown confidence*
- *Unknown*

- *Danube River Basin District*
- *National borders*

Cities:

- *100,000 - 250,000 inhabitants*
- *250,000 - 1,000,000 inhabitants*
- *> 1,000,000 inhabitants*

0 50 100 200 Kilometers

Scale: 1 : 4,500,000

(Scale 1: 6,000,000 in A4 landscape paper format)

Vienna, May 2015

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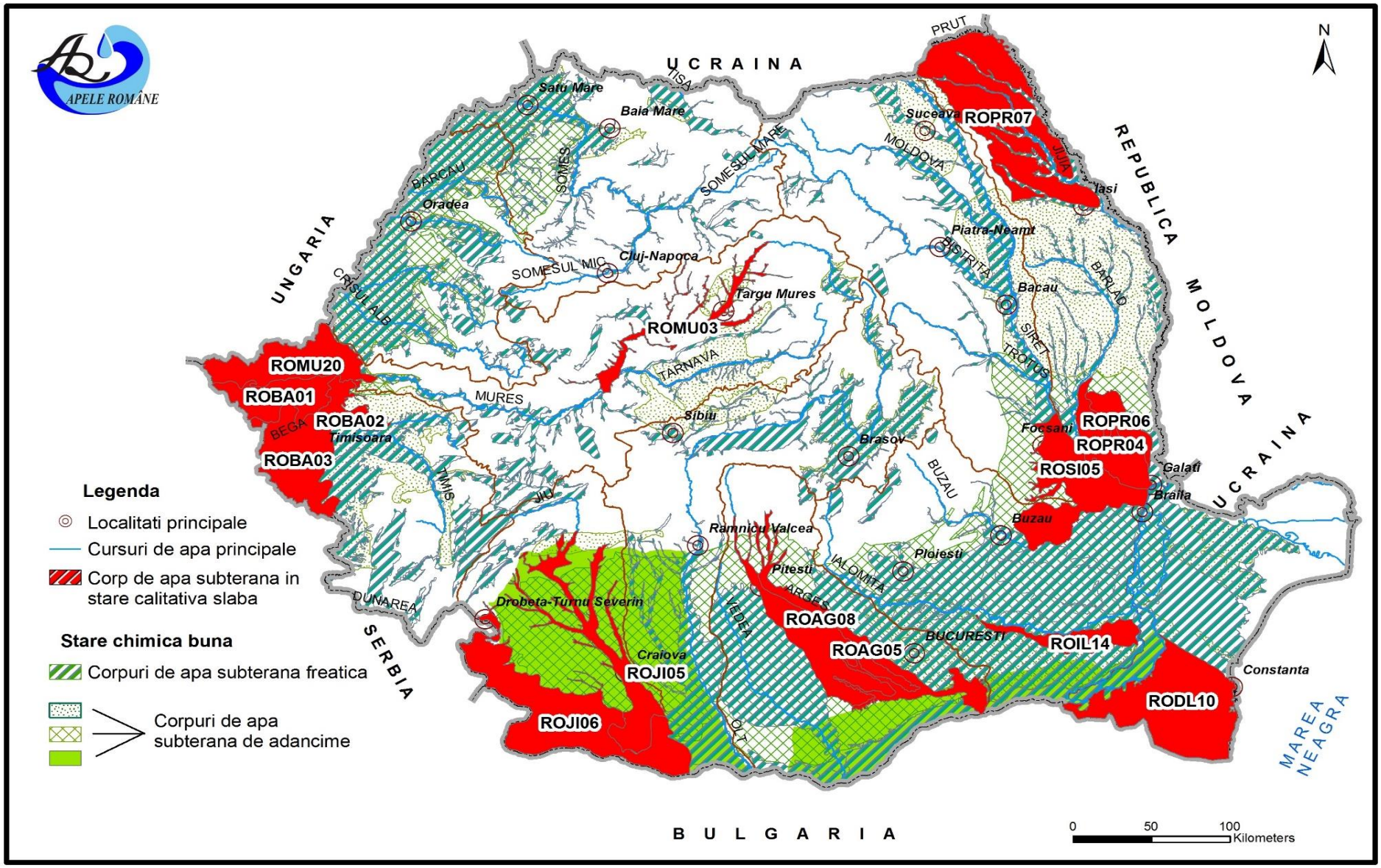
Internationale Kommission zum Schutz der Donau

GROUNDWATER BODIES-CHEMICAL STATUS



Impacts of hazardous substances pollution

- **Toxicity**
- **Bioaccumulation**
- **Persistence**

Hazardous Substances Pollution
Main drivers

- Industry (including mines)
- Agriculture
- Urban development

Significant potential pressures

- **Point sources:** 1492 (841 municipalities, 480 industrial units,

  59 farms, 139 other types)
- **Diffuse sources:** 2061 (1731 municipalities, 42 industrial units, 288 farms)
- **Other antropogenic pressures:** 1272 water users that have risk for accidental pollutions, 75 water bodies for aquaculture activites, etc

Basin Wide Management Objectives related to the dangerous substances pollution

- Elimination/reduction of the total amount of hazardous substances entering the Danube and its tributaries to levels consistent with the achievement of the good chemical status .
- Implementation of Best Available Techniques and Best Environmental Practices including the further improvement of treatment efficiency, treatment level and/or substitution.
- Explore the possibility to set up quantitative reduction objectives for pesticide emission in the Danube River Basin.
- Implementation of the Integrated Pollution Prevention Control Directive (96/61/EC), which covers also the Directive *76/464/EWG*.

Basic measures for tackling hazardous substances pollution

- Stop all discharges of untreated wastewater from towns with more than 10,000 inhabitants and from all major industrial installations and to increase the efficiency and level of treatment thereafter;
- Phase out entirely the discharge of those substances which are identified as constituting the highest risk to the aquatic ecosystems in the Danube basin and to reduce significantly the discharge of other pollutants;
- All installations discharging hazardous substances into the environment have to have permits;
- Prescription emission limit values in permits as minimum requirements for discharge into waters

Supplementary measures for tackling hazardous substances pollution

Implement Promotion of BAP regarding pesticides input from agriculture (guidelines/recommendations and national reporting of actions) linked to CAP

- reduce field pesticides application rates by integrated pest management

measures;

- encourage substitution of priority pesticides by less harmful ones;
- encourage substitution of pesticides by biological or mechanical control methods;
- encouragement of organic farming;
- optimization of spraying technique;
- careful filling of spray tank, cleaning of sprayer, disposal of PPP;
- development of strategies to avoid pesticide resistance;
- appropriate pesticide storage;

Disease control

Nutrients management

Crops rotation

Impacts of hazardous substances pollution

Demonstrated practices

Soil Conservation works

Ecological fertilizers

Future obligations related to hazardous water pollution

- New emerging substances
- Updated list of PS
- Ubiquitus substances
- Microplastic

Main challenges for Romania related to the priority dangerous substances

- Lack of technical capacity
- Need for sustainable financial resources
- Need for very specialized professionals
- Existence of necessary methods
- Need for further research


Thank you very much for your attention !