Marine Strategy and the Bulgarian Experience

First Training School for the Promotion and Application of EU Marine Environmental Policy Frameworks in Non EU Mediterranean and Black Sea Countries

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Environmental Challenges in the Black Sea Region

- All Black Sea countries declare the unique Black Sea as a common treasure and responsibility;

- The Black Sea region suffers from common environmental problems, each with
  - Regional
  - National
  - Local dimensions;

Environmental Challenges in the Black Sea region common 2020 Vision

- Enhance the profile of Black Sea regionalism, promoting intercultural dialog and regional cooperation schemes
    - Black Sea countries:
        - EU members: Bulgaria, Romania
        - Non-EU members: Turkey, Russia, Ukraine, Georgia
- Unified policy on environmental protection and preservation, according to the sustainable development concept (Agenda 21)

Environmental Challenges in the Black Sea region common 2020 Vision

- Focus on socio-economic and environmental issues that meet common environmental, social and economic problems and needs
- Enhancing and strengthening the public awareness on environmental issues with regional dimensions
- Promote good governance on central and local level with a focus on the quality of life and the environmental protection and preservation

European (EU) Environmental Marine/Maritime Policy in EU legislation

- Marine Strategy Framework Directive (MSFD:2008 / 56 /EC; Com Dec 2010/477/EU)
- Water Framework Directive (WFD: 2000/60/EC)
- Environmental Quality Standards Directive (EQS: 2008/105/EC)
- Habitats Directive (HD: 92/43/EEC)
- Birds Directive (BD: 2009/147/EC)
- Common Fisheries Policy (CFP: Council Regulation EC/ 199/2008; Commission Decision 2010/93/EU)
- Nitrates Directive (ND:91/676/EEC)

Transposition of EU Environment Legislation to Bulgaria National Legislation

- Bulgaria, as an EU-State member, adopted the common EU environmental policy, incl. Marine Policy:

- Law on Environmental Protection, 61/2010
- The Biological Diversity Law, adopted by National Assembly of R. Bulgaria, 2011
- Law on Water, 50/2010
- Regulation on environmental protection in the marine environment;
- Regulation on water monitoring;
- Regulation on standards for environmental quality for priority substances and other pollutants…

Transposition of EU Environment Legislation to Bulgaria National Legislation

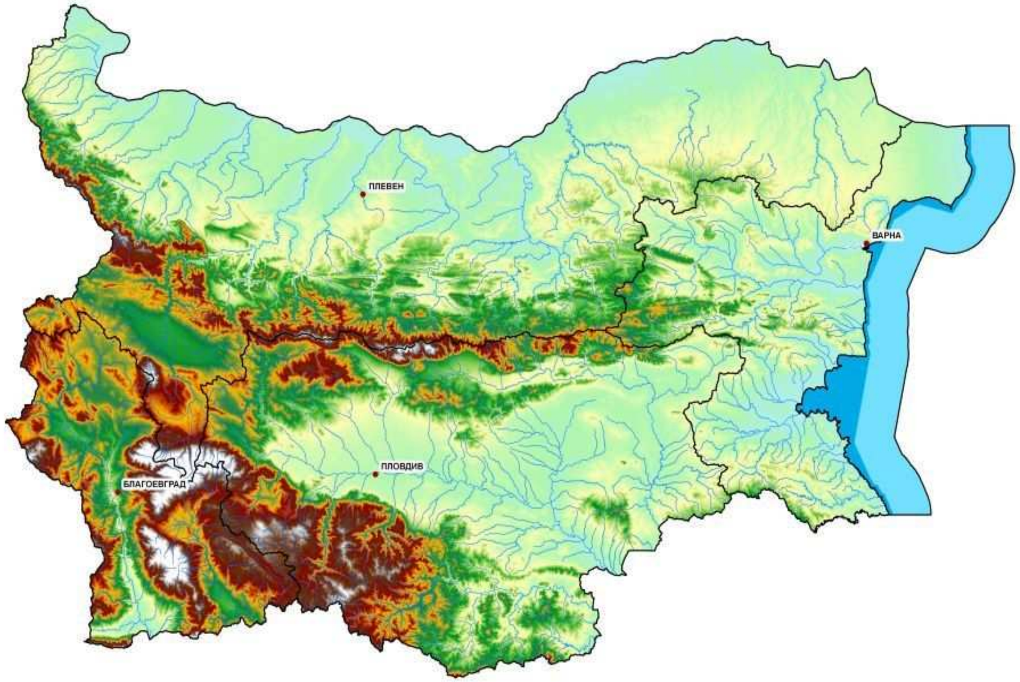
- Bulgaria declares that sustainable development principles are a priority in the national development strategy (laws, legislation documents and the National Development Strategy 2007-2013)
- Ratification of international conventions on environmental protection (MARPOL, Convention for Black Sea protection against pollution-Bucharest convention, etc.)

MSFD, Initial Assessment and GES

Bulgarian experience Source of information

- National water monitoring programs - institutional and non- institutional
- Regional monitoring program BSIMAP (Black Sea Integrated Monitoring and Assessment Program)
- Manuals on sampling and analysis, abundance, biomass, blooms and taxonomic identification has been developed and used for soft-bottom (macrozoobenthos , zooplankton and phytoplankton
- National statistic – about the pressures indicator
- Research
- Water management plan implementation data
- Industry
- International cooperation (e.g. projects, scientific cruises)

Water monitoring in Bulgaria



water monitoring and management
4 sub-regions

Sampling stations

Water monitoring in Bulgaria

13 coastal water bodies are monitored

21 sampling stations are used

Coastal waters	**Name/ location**	**Water body**
1.	from Durankulak to cape Shabla	BG2BS000C001
2.	from cape Shabla to Kamen briag	BG2BS000C002
3.	from to Kamen briag to cape Kaliakra	BG2BS000C003
4.	from cape Kaliakra to Albena resort	BG2BS000C004
5.	Varna bay	BG2BS000C005
6.	from cape Ilidjic to 27°53'43"/ 42°58'17"	BG2BS000C006
7.	from point 27°53'43"/ 42°58'17" to cape Emine	BG2BS000C007
8.	Burgas bay < 30м.	BG2BS000C008
9.	Koketrais	BG2BS000C009
10.	Burgas bay > 30м.	BG2BS000C010
11.	from cape Acin to cape Korakia	BG2BS000C011
12.	from cape Korakia to Resovska river estuary	BG2BS000C012
13.	From Albena resort to cape Ilidjik	BG2BS000C013

Coastal waters

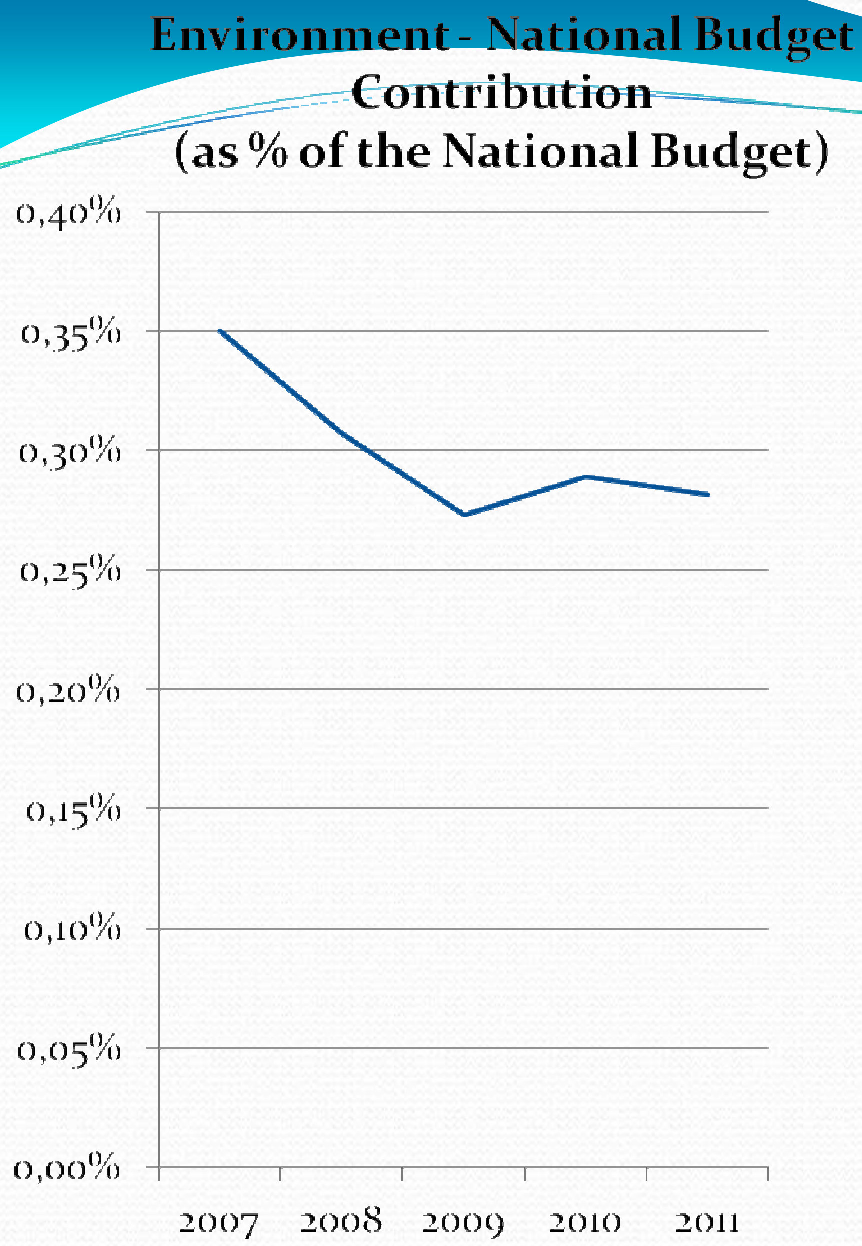
№	Name / location	Water body	Ecological status, 2010
1.	from Durankulak to cape Shabla	BG2BS000C001	poor
2.	from cape Shabla to Kamen briag	BG2BS000C002	bad
3.	from to Kamen briag to cape Kaliakra	BG2BS000C003	bad
4.	from cape Kaliakra to Albena resort	BG2BS000C004	poor
5.	Varna bay	BG2BS000C005	poor
6.	from cape Ilidjic to 27°53'43"/ 42°58'17"	BG2BS000C006	poor
7.	from point 27°53'43"/ 42°58'17" to cape Emine	BG2BS000C007	bad
8.	Burgas bay < 30м.	BG2BS000C008	poor
9.	Koketrais	BG2BS000C009	moderate
10.	Burgas bay > 30м.	BG2BS000C010	moderate
11.	from cape Acin to cape Korakia	BG2BS000C011	No data
12.	from cape Korakia to Resovska river estuary	BG2BS000C012	good
13.	From Albena resort to cape Ilidjik	BG2BS000C013	bad

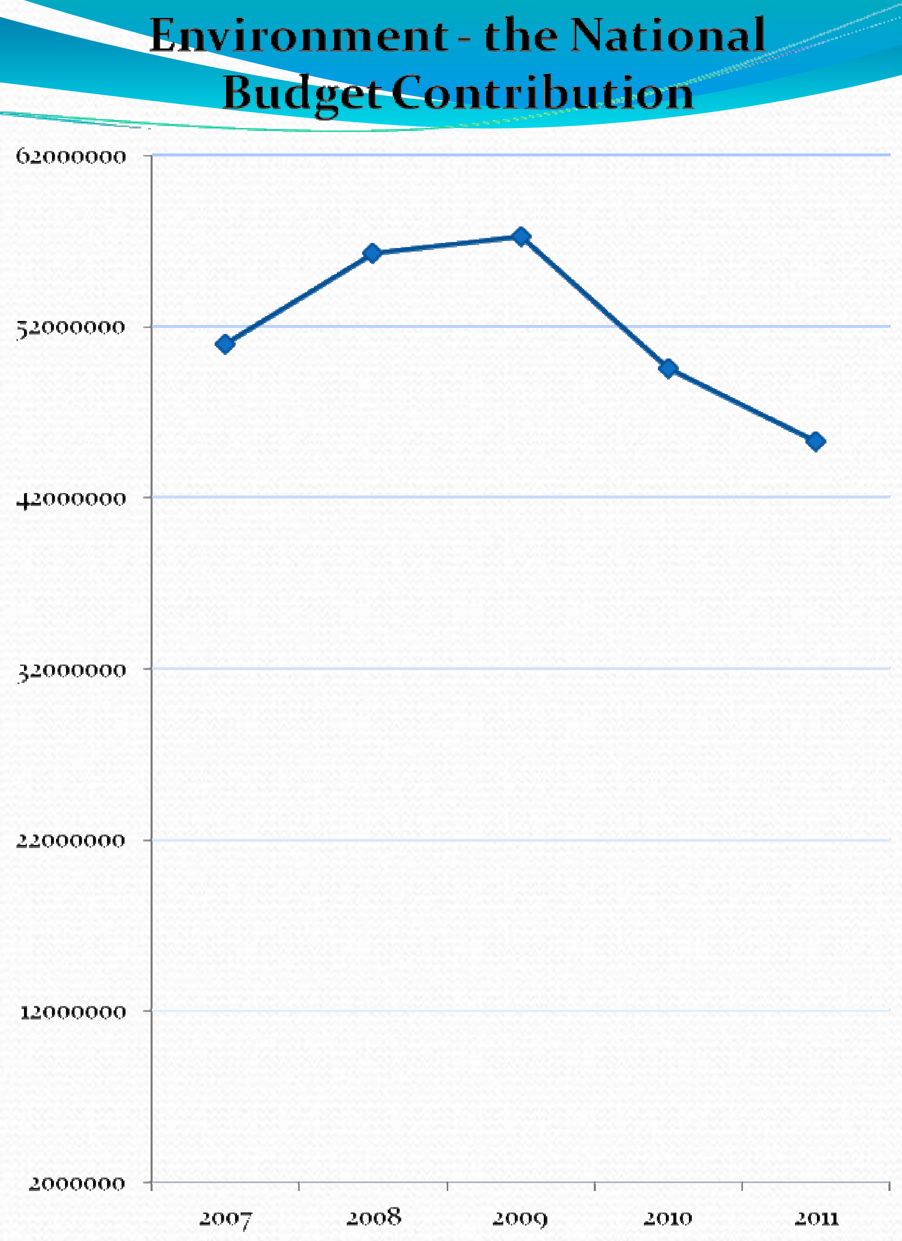
Monitored indicators /parameters

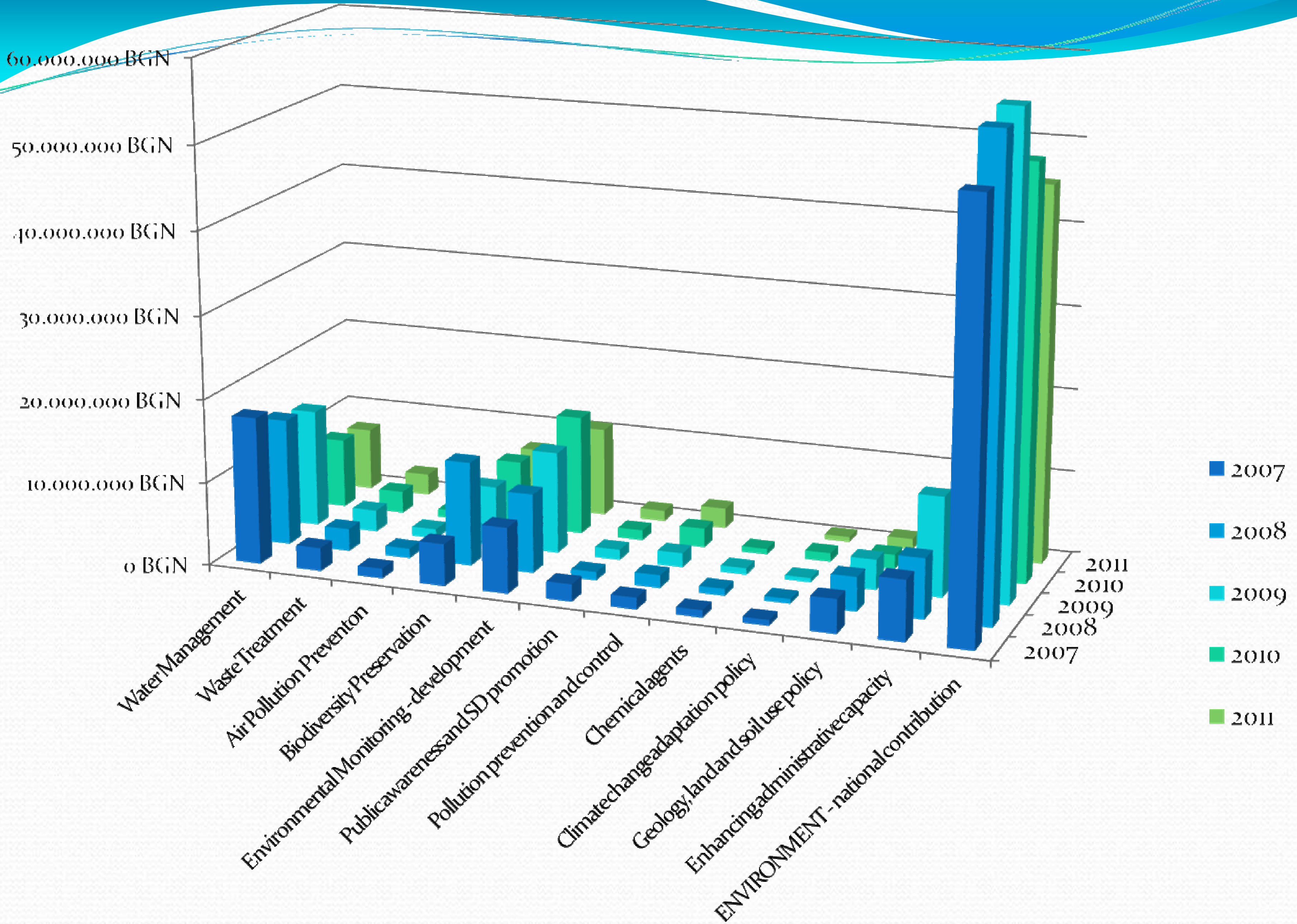
- Phytoplankton - not regularly monitored due to the partial funding (2008 – no data)
- Macro- Zoobenthos
- Phytobentos - not regularly monitored
- Physic-chemical parameters and chemical parameters
- Priority substances and specific pollutants – not regularly monitored

Ecological status of coastal waters

- For complete and representative assessment of the water bodies condition should be made seven samplings for phytoplankton and physicochemical parameters and once sampling for macrozoobenthos and macro-algae.
- According to the WFD 2000/60 EU priority substances and specific pollutants are monitored monthly for a minimum period of one year.
- The water bodies ecological status comparison is not appropriate due to the applied assessment methodology

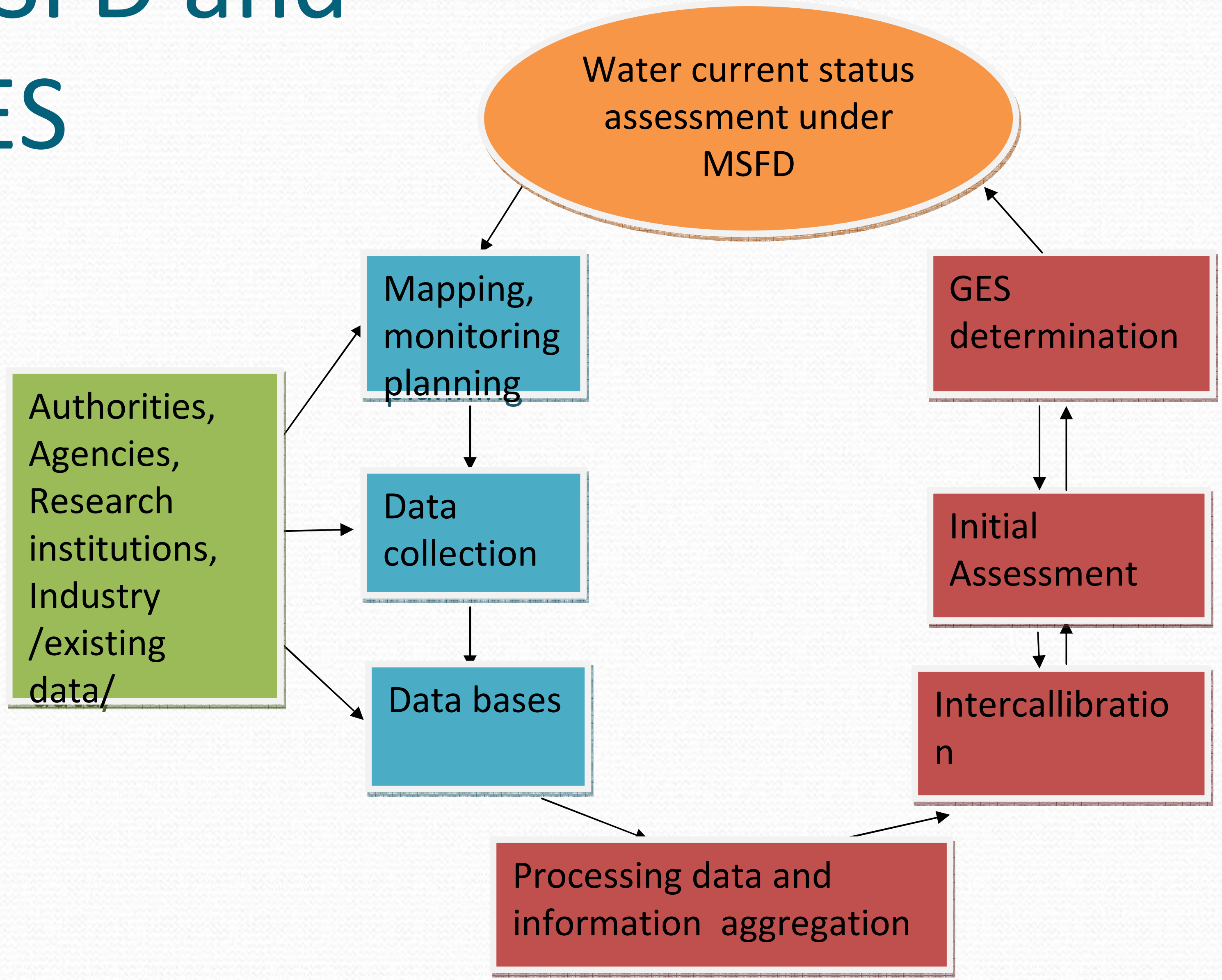

Environment - National Budget Contribution
(as % of the National Budget)
0,40%
0,35%
0,30%
0,25%
0,20%
0,15%
0,10%
0,05%
0,00%
2007
2008
2009
2010
2011


Environment - the National Budget Contribution
62000000
52000000
42000000
32000000
22000000
12000000
2000000
2007
2008
2009
2010
2011



60.000.000 BGN
50.000.000 BGN
40.000.000 BGN
30.000.000 BGN
20.000.000 BGN
10.000.000 BGN
0 BGN
Water Management
Waste Treatment
Air Pollution Preventon
Biodiversity Preservation
Environmental Monitoring - development
Public awareness and SD promotion
Pollution prevention and control
Chemical agents
Climate change adaptation policy
Geology, land and soil use policy
Enhancing administrative capacity
ENVIRONMENT - national contribution
2011
2010
2009
2008
2007
2007
2008
2009
2010
2011

MSFD and GES



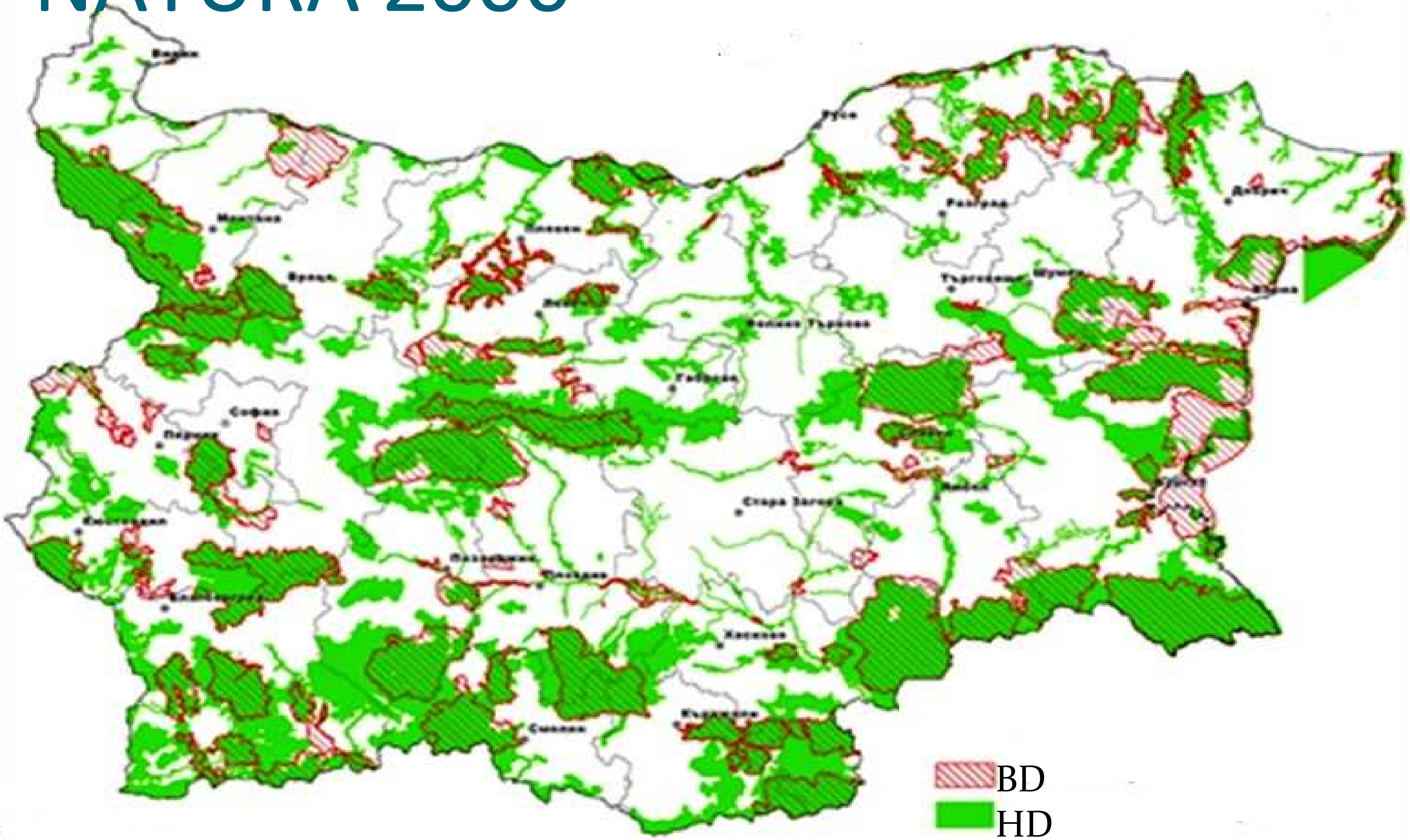
Water current status assessment under MSFD
Mapping, monitoring planning
Data collection
Data bases
Authorities, Agencies, Research institutions, Industry /existing data/
GES determination
Initial Assessment
Intercallibration
Processing data and information aggregation

Risk Assessments

GES Descriptor (and characteristics)	Mediterranean Sea	Black Sea
Biodiversity - Plankton	Moderate	Moderate
Biodiversity - Fish	Moderate	Moderate
Biodiversity - Mammals and reptiles	High	Moderate-high
Biodiversity - Seabirds	Moderate	High
Biodiversity - Predominant habitats	Moderate	Moderate-high
Non-indigenous species	High	High
Commercial fish and shellfish	High	High
Food webs	High	High
Eutrophication	Moderate	Moderate
Seafloor integrity	High	High
Contaminants	Moderate	Moderate-high
Contaminants in fish and shellfish	Low	Moderate
Marine litter	High	High
Underwater noise	High	High
HD Habitats and Species	High	N/A

Leonie Robinson, ODEMM, 2012

NATURA 2000



Region/ Sea	Economy sectors pressures to Marine Ecosystems	MSFD Descriptors at high risk of failing GES
Black Sea	Agriculture Coastal Infrastructure and heavy coast modification Fishing Shipping Tourism/ recreation Waste water treatment	Non-indigenous species, Commercial fish and shellfish, Food webs, Seafloor integrity, Marine litter, Contaminants, Biodiversity- seabirds, Underwater noise
Mediterranean Sea Leonie Robinson, ODEMM, 2012	Agriculture Aquaculture Coastal Infrastructure and heavy coast modification Fishing Shipping Navigation dredging Tourism/ recreation Waste water treatment	Non-indigenous species, Commercial fish and shellfish, Food webs, Seafloor integrity, Marine litter, Underwater noise, HD habitats and species, Biodiversity – marine mammals and reptiles

Marine environmental issues – roots of the problem

- Different status of the Black Sea countries (EU and non-EU) and acknowledged obligations in the field of environmental policy
- Different level of socio-economic development
- Sustainable use of national resources as a national priority only “on paper”
- Lack of mechanism of efficient implementation and promotion of Pan European and Regional environmental policy (EU Marine Strategy, Bucharest Convention)
- Limited funding of permanent environmental initiatives (environmental education; measures and activities, pollution and biodiversity loss prevention)

Conclusions

- We are facing and addressing challenges in order to *manage* the environmental problems with regional, national and local dimensions, such as:
  - Lack of common unified water management policy;
  - Lack of appropriate coastal planning and management;
  - Insufficient system for waste treatment and management in anthropogenic pressurized coastal areas (especially for tourist areas);
  - Lack of administrative capacity of local and national authorities (especially for municipalities)…
  - Lack of Environmental and Socio- Economical Policy based on Science (Strategy development, Planning, Implementation, Monitoring, Control)

Thank you !

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