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# **CONSIDERATIONS REGARDING THE PROTECTION AND PRESERVATION OF MARINE AND COASTAL BIODIVERSITY BY IMPLEMENTING THE STRATEGIC PLAN 2011-2020**

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## **ABSTRACT**

The paper presents viewpoints regarding the protection and preservation of the marine and coastal biodiversity, taking into account the decisions adopted by the Conference of the Parties to the Convention on Biological Diversity at its tenth meeting, which took place in Nagoya, Japan, in 2010.

**KEY-WORDS:** marine and coastal biodiversity, protection, strategic plan, ecosystem services

The world's oceans host a high biodiversity and new oceanic species are continuously being discovered, particularly in the deep seas.

The oceans and seas are the largest natural reservoirs of carbon, which can significantly affect the rate and scale of global climate change, having an adverse impact on marine and coastal biodiversity (sea level rise, ocean acidification, coral bleaching etc.).

The marine and coastal biodiversity has importance to the mitigation of adaptation to climate change.

The Convention on Biological Diversity (CBD) ratified by Romania by Law 58/1994 has three objectives: the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of benefits arising out of the utilization of genetic resources.

The biodiversity target - to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on Earth has not been met in full.


At the global level, the efforts have not been able to prevent the serious decline in marine and coastal biodiversity and ecosystem services.

The reasons for extinction of species are:

- human activities bring habitat loss or fragmentation;
- overexploitation of biological resources (intensive fishery, intensive hunting of rare species for commercial use);
- some native species have been decreasing because of influential alien species;
- changes in human lifestyle are also involved with the decrease of species;
- climate change such as global warming.

The underwater noise has also impact on marine and coastal biodiversity such as under the Convention on Migratory Species.

On a global scale, it is estimated that tens of thousands of species might become extinct every year (**Fig. 1**).



Number of threatened species in major taxonomic group				
Taxonomic group	Number of described species	Number of species evaluated	Number of threatened species	Number threatened as % of species evaluated
<b>Vertebrates</b>				
Mammals	5488	5488	1141	21%
Birds	9990	9990	1222	12%
Reptiles	8734	1385	423	31%
Amphibians	6347	6360	1905	30%
Fishes	30700	3481	1275	37%
<b>Invertebrates</b>				
Insects	950000	1259	626	50%
<b>Plants</b>				
Mosses	16000	95	82	86%
Ferns and allies	12838	211	139	66%
Gymnosperms	980	910	323	33%
Angiosperms	258650	10779	7904	68%

**Fig. 1 Number of threatened species in major taxonomic groups**

Measures to conserve biodiversity differ depending on the country and this is one reason why it is difficult to reach consensus on how to solve biodiversity problems. If some countries adopt a production method which emphasizes biodiversity conservation, they may lose the price competition to products made in other countries which do not consider biodiversity conservation.

The slow progress was made towards achieving the 2010 target of establishment of marine protected areas, consistent with international law and based on the best scientific information available.

The limited capacities, technical and financial resources have been an obstacle to achieving the 2010 target in many countries, as well as in Romania.

Despite efforts in the last few years, just over 1% of the ocean surface is designated as protected areas, compared to nearly 15% of protected-area coverage on land.

The vision of the Strategic Plan for Biodiversity 2011-2020 established at the 10<sup>th</sup> Conference of the Parties on CBD is “Living in harmony with nature”, where by 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.

By 2020, at least 10% of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably management.

The purpose of the Strategic Plan for Biodiversity 2011-2020 is to promote effective implementation of the CBD through a strategic approach, comprising a shared vision, a mission, and strategic goals and targets.

Contracting nations commit themselves to significantly reduce the current rate of biodiversity loss at the global, regional and national levels taking into account the following:

- (a) reducing the rate of loss of the components of biodiversity, including ecosystems, species and populations and genetic variations;
- (b) promoting sustainable use of biodiversity;
- (c) addressing the major threats to biodiversity, including those arising from invasive species, climate change, pollution and habitat change;
- (d) maintaining ecosystem services;
- (e) recognizing and protecting traditional knowledge and practices;

- (f) ensuring the fair and equitable sharing of benefits from biodiversity;
- (g) mobilizing financial and technical resources.

By respecting the Strategic Plan for Biodiversity 2011-2020, the Parties to the CBD will take effective and urgent actions to stop the loss of biodiversity in order to ensure that, by 2020, ecosystems are resilient and continue to provide essential services, thereby securing the planet's variety of life and contributing to human well-being and poverty eradication.

Using precautionary and adaptive managements, monitoring are essential for investigating the situations of indicator species and ecosystem functions, to see whether or not management measures are functioning successfully.

Monitoring investigates the situations of indicator species and ecosystem functions for the purpose of (re)considering the measures used in managements. Individual species are conserved both within and outside of habitats, based on the evaluation of their risks of extinction. In some cases, the conservation of a certain species means conservation of the whole ecosystem. For conservation of ecosystems, the establishment of refuges is effective. In areas surrounding refuges, devices for sustainable use are needed.

Regarding the marine and coastal biodiversity, the Strategic Plan for Biodiversity 2011-2020 will be implemented in Romania taking into consideration the improving of the status of biodiversity by safeguarding ecosystems, species and genetic diversity:

- ❖ extending the efforts in identifying current scientific and policy gaps in order to promote sustainable management, conservation and enhancement of natural carbon sequestration services of marine and coastal biodiversity;
- ❖ identifying and addressing the underlying drivers of marine and coastal ecosystem loss and destruction and improving the sustainable management of coastal and marine areas;
- ❖ urgent actions to curb the pressures directly driving biodiversity loss (habitat change, overexploitation, pollution, invasive alien species and climate change);
- ❖ restoration of degraded marine ecosystems with a view to re-establishing ecosystem functioning and the provision of valuable services;
- ❖ enhancing the efforts to increase the resilience of coastal and marine ecosystems, through, improved implementation;
- ❖ exploring the policy options, including assessments of the financial resources required to address the causes of biodiversity loss;
- ❖ enhance scientific efforts, to update a comprehensive and accessible database of all forms of life in the sea and further assess and map the distribution and abundance of species in the Black Sea (**Fig. 2**);



**Fig. 2. Black Sea**

- ❖ implementing the actions for marine biodiversity protection taking into account national capacity and circumstances;
- ❖ integrating the climate change-related aspects of marine and coastal biodiversity into relevant national strategy, action plan and programs;
- ❖ designation and management of marine and coastal protected areas, including the selection of areas in need of protection to ensure maximum adaptive capacity of biodiversity;
- ❖ research activities, in accordance with international law, including the United Nations Convention on the Law of the Sea, to explore marine communities where the current level of knowledge is scarce or inexistent;
- ❖ ensuring the sustainability of fisheries, by managing the impacts of fisheries on species and the wider ecosystems;
- ❖ eliminating illegal, unreported and unregulated fishing to a good environmental status in marine and coastal waters;
- ❖ minimize the specific as well as cumulative detrimental impacts, where they occur, of human activities on marine and coastal biodiversity (shipping, extraction of living and non-living resources, biotechnology, scientific research, infrastructure, waste disposal, tourism and other human activities);
- ❖ collaboration and working jointly with relevant regional initiatives, organizations, and agreements in identifying ecologically or biologically significant marine areas, in accordance with international law and to promote conservation and sustainable use of biodiversity in those areas;

When we think about biodiversity problems, we must not forget the following three points:

- ✓ biodiversity supports human well-being;
- ✓ international cooperation is essential for the solution of biodiversity problems;
- ✓ the early solutions lessen economic losses.

Preserving ecosystems whose biodiversity is high brings us better lives not only monetarily, but also spiritually and culturally.

The prevention of further human-induced biodiversity loss for the near-term future, well-targeted policies focusing on critical areas, species and ecosystem services can help avoid the most dangerous impacts on people and society.

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