



GOVERMENT OF THE REPUBLIC OF SERBIA Ministry of Environmental Protection





#### Serbia

Facts and figures in linking biodiversity and health Biljana Filipovic





- Serbia is a country of rich ecosystem and species
  - **diversity** (covering only 1,9% of the whole European territory it is home to 39% of European vascular flora, 51% of European fish fauna, 40% of European reptile and amphibian fauna, 74% of European bird fauna, 67% European mammal fauna).
- The diversity of ecosystems in Serbia is primarily evident in the diversity and specific character of its vegetation.
- 462 natural areas in Serbia are protected: 5 national parks, 16 landscapes of exceptional features, 67 nature reserves, 16 nature parks, 316 natural monuments and 42 areas of cultural and historical importance.
- Total protected area is 5.91% of the Serbian territory (522,120 ha). The spatial plan of the Republic of Serbia states that the total protected area should be increased 12% by 2021.

- Ecological networks and internationally important areas
  represent generally accepted examples of nature conservation
  assuring the development of international cooperation, aimed at the
  conservation of wild flora and fauna and their natural habitats.
- The national ecological network is currently being developed in Serbia (consists of 101 ecologically important areas, about 20.9% of the Serbian territory).
- The Law on Nature Conservation states that the ecological network in Serbia should be determined and become part of the Natura 2000 Network, by the date of Serbia's accession to the European Union.

- ➤ 61 areas have been selected for Emerald Network in Serbia. These areas are considered as particularly important for the protection and conservation of wild plant and animal species and their habitats (11.54% of the Serbian territory)
- 11 Serbian areas are located on the route of the European Green Belt.
- There are 9 areas in Serbia protected according to Ramsar Convention criteria.
- ➤ Biosphere Reserve Golija-Studenica and the Mura-Drava Danube, are designated as special natures reserves.
- 42 areas of international importance for the conservation of bird diversity in Serbia have been selected by applying the IBA (Important Bird Area) criteria.,
- 61 IPAs (Important Plant Area) have been identified in Serbia, on 8% of the territory.
- On the territory of Serbia 40 PBAs (Prime Butterfly Areas) have been selected. Prime butterfly areas occupy 903,643 ha, that is 10.23% of Serbian territory.



In order to preserve and raise awareness of the value of biological and landscape diversity, administrative protection is being implemented through the protection of species, habitats, areas, or through the creation of different ecological networks. In the past few years, significant progress in the adoption and implementation of legislation on nature protection has constantly been recorded in Serbia.



- Large number of global, European and regional Conventions associated with environmental protection and biodiversity conservation, were adopted.
- Laws of key importance and a number of regulations related to environment & nature protection, and sustainable development, adopted and harmonized with relevant EU directives.

Facts and figures of linkages between biodiversity and health in Serbia

- The Ministry of Environmental Protection is responsible for matters including environmental and nature protection, protection of biodiversity, climate change issues, and environmental protection in spatial planning and construction. Also, control of trade o protected plant and animal species is carried out and monitored.
- The decision of establishing a separate MEP is made because the issue of environment is important for the quality of life and the health of population, as well as for Serbia's obligation in the process of accession to EU in terms of environment

# The Biodiversity Strategy of the R. Serbia (2011-20180

- > establishes basic principles for Biodiversity protection, which are harmonized with the principles of EU.
- recognizes the need for the integration of biodiversity into production sectors in Serbia, especially those which have a direct benefit bindivariatival resources and manage these Resources agriculture, forestry, fishing, utilization of plants and animals, mining, production of electric power and tourism.
- ➤ However, the Biodiversity Strategy of the Republic of Serbia, does not recognize, nor mention the linkages between biodiversity and health.

## The Fifth National report to the UN Convention on biological diversity

- gives the overview of the status, trends, threats and significance of BD for human well being.. It also comprises the:
- IMPLEMENTATION OF THE NATIONAL BIODIVERSITY STRATEGY AND ACTION PLAN AND INTEGRATION OF BIODIVERSITY INTO OTHER SECTORS,
- PROGRESS TOWARDS THE 2015 AND 2020 AICHI TARGETS AND
- CONTRIBUTION TO THE RELEVANT 2015 MILLENNIUM DEVELOPMENT GOALS..
- In general, the Biodiversity Strategy and the Action plan of the Republic of Serbia should be more significantly recognized and accepted by other sectors and competent institutions as an umbrella document whose goals and guidelines should be included in appropriate regulations and strategic documents.

Revision of the Biodiversity Strategy 2011–2018 has been performed, coordinated by the Ministry of Environmental Protection (which has established a working group for this purpose), in cooperation with the UNDP Serbia, and within the framework of the GEF/UNDP project "Planning of the Conservation of Biodiversity at the National Level as a Support to the Implementation of the Strategic plan of the Convention on Biological Diversity for the period from 2011–2020 in the Republic of Serbia".

Draft Strategy for Nature Conservation of the Republic of Serbia for the period 2017-2027, and its Action plan, is currently in the procedure of obtaining the opinion of the competent authorities for adoption by the Government.

The Action plan of the Draft Strategy includes 12 Strategic goals, of which goal 4 refers to Sustainable use of biodiversity and ecosystem services valuation and contributes to Aichi Target 14: By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities and the poor and vulnerable (specific goal 4.3. System for valuing biodiversity components, landscapes and ecosystem services is established)

#### Challenges at national level

Develop new and strengthen the existing mechanisms in order to promote research, capacity building and information dissemination for joint human health and biodiversity sector actions.

- Increase national awareness about biodiversity and health linkages, and create
  mechanisms to calculate the economic benefits from the protection of
  biodiversity in comparison with the activities which lead to the loss of biodiversity
  affecting health.
- Integration of these mechanisms into national policies, plans, budgets and strategies in relevant sectors have not been established so far.
- Strengthening the legislative framework that would secure implementation and harmonization of legislation, referring to biodiversity and health, must also become one of the national objectives.
- Ensuring more significant funds for the initiation of the whole system. The existing databases are not networked.
- Support national scientific research projects considering BD and H.

- Example of joint actions we have among climate change and biodiversity sectors:
- Publication "Impact of climate change on biodiversity in Serbia "
  provides an overview of issues relating to the impact of climate
  change on biodiversity There is no systematic monitoring of the
  impact of climate change on biodiversity in Serbia. Current research
  and planning is based primarily on global research, meaning the
  experiences and recommendations of other countries. However,
  there is some data on forests which, for example, follows the
  changes of groundwater levels and their impact on dry forests, as
  well as impacts on the composition of forests (ash and oak tree
  species were monitored).

#### Examples of Climate change and health

- In the course of the past decades, Serbia faced new risks to the human health, which are related to climate change either directly or indirectly. Direct effects appear due to temperature increase, climate variability, increased intensity of precipitation, longer duration of droughts, which all together may have a negative impact on the human health. During the heat wave in July 2007, increased mortality rate was recorded in Belgrade. During the floods in May 2014, 51 casualties were recorded. Floods and landslides had direct impact on the human health.
- Indirect threat during floods is potential contamination of surface and ground waters and the surrounding land by hazardous substances and waste waters.

### Example of connecting BD and health

- Report "Natural resources and well-being of people in Serbia" showing the statistical data related to the changes in trends in the last five years
- (2008-2012), which relate to basic resources of natural systems in Serbia land, agricultural land forest resources.
- The basic analysis of natural resources which influence the human well-being in Serbia has been displayed, by using the principle which was represented in the Environmental Indicator Report of the European Environment Agency for 2013.

#### Future work

Relevant national policies: National Environment Action Plans, National Biodiversity Action Plans and Strategies, National Strategy of Sustainable Development, etc...could be updated considering biodiversity and health issues.

EH activities. Within this plan we could establish BD and health linkages, promoting intersectoral cooperation in identifying key priorities. We already involve NGO sector in all activities... and since we are in the phase of promotion of the EH process on local level, we may include the link with biodiversity in future promotional activities on national level, in order to raise awareness among the local institutions and public. process

#### Conclusions

- NO systematic monitoring of the impact of climate change on biodiversity and health.
- Future National Action Plan for EH &biodiversity requires a number of initiatives: vulnerability analysis, risk assessment, the development adaptation strategies, raising awareness on the impact of climate change on biodiversity& health.
- Most effective could be the pilot approach at local level, including the Regional Agencies and Local authorities. Capacity building of local officials and institutions in developing future actions must be provided.
- Already existing collaborative mechanisms are visible in the projects provided by the REDASP; we can use the same example of promoting the biodiversity and health linkages among local governments for defining future actions in the 2 year period.

- Relevant national policies: National Environment Action Plan, National Biodiversity Action Plan, National Strategy of Sustainable Development, etc...could be updated considering biodiversity and health issues.
- Drafting the National EHAP, which will develop future could establish BD and health linkages, promoting intersectoral cooperation in identifying key priorities.
- We already involve NGO sector in all activities (promotion of the EH process on local level),
- link with biodiversity in future promotional activities on national level, in order to raise awareness among the local institutions and public

