

MCESD: Mediterranean Committee on Education for Sustainable Development



Union pour la Méditerranée
Union for the Mediterranean
الإتحاد من أجل المتوسط



Mediterranean Action Plan
Barcelona Convention



Venice Office
Regional Bureau for Science
and Culture in Europe



UNECE



2nd Meeting of the Mediterranean Committee on Education for Sustainable Development (ESD)

Executive Meeting & Regional Workshop on ESD

Heraklion, Crete Greece, 24 – 26 June 2019

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Ministry of Education and Science

BULGARIA

Secretariat support &
scientific coordination

With the support of



CYPRUS
MINISTRY OF EDUCATION
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Ανάπτυξη
Ηρακλείου
HERAKLION
DEVELOPMENT AGENCY

ESD in [COUNTRY]

1. Is there any Plan / Strategy / Policy / Document
(institutional framework) on ESD:

YES

X NO

If YES:

Title

Level of implementation:

Already applied

In reviewing phase

X In the pipeline

ESD in [BULGARIA]

2. If there is no particular framework solely for ESD, is there any Plan/Strategy/Policy Framework on Education (general) or Sustainable Development or on SDGs in which **ESD is addressed?**

YES

NO

If YES:

Title As of 2017, a state educational requirement on civics, intercultural, health and environmental education has been developed and enacted under the new Pre-School and School Education Law

Level of implementation:

Already applied

In reviewing phase

In the pipeline

ESD in [COUNTRY]

3. Is ESD mainstreamed in formal education **curricula**? Check the level of education in which ESD is mainstreamed:

X Primary Level,

X Secondary level,

Tertiary level, please specify:

undergraduate courses on, or, related to ESD

post-graduate courses on, or, related to ESD

ESD in [BULGARIA]

4. Is ESD mainstreamed in **Training** Programmes of educators?

YES

NO

Please add here any general comments / remarks about ESD in your country

Provided that the trainings are part of continuous professional development of teachers, the training institutions, which could be also non-governmental or even private bodies along with universities and other nationally-subsidized institutions, an offer courses on ESD –related or dedicated thematic areas and subjects.

Case studies on the four themes

Check if the workshop's themes are addressed in formal and/or non-formal education programmes, activities, initiatives in the following table.

Case studies on the four themes

	A. School Subjects or Projects	B. Tertiary Education Courses	C. Educators Trainings	D. Projects of non-formal education by NGOs, UN bodies, CSOs, Centres, etc.
I. Education on Sustainable Consumption & Production	X	N/A	N/A	X
II. Marine Litter/Plastics	N/A	N/A	N/A	X
III. Education on Biodiversity, Biosphere Reserves	X	N/A	N/A	X
IV. Human Rights & Inclusion Education (refugees, gender, vulnerable groups, disabled, excluded due to poverty, etc.)	X	N/A	X	X

Choose & Present your case studies on:

- I. Education on Sustainable Consumption & Production
- II. Education to tackle the issue of Marine Litter
- III. Education on Biodiversity /Biosphere Reserves
- IV. Education for Human Rights & Inclusion Education
(refugees, gender, vulnerable groups, disabled, excluded due to poverty, etc.)

Case study 1 on Education on bio/geo-diversity

International project – Bulgarian Initiative supported by UNESCO

Travelling school & Competition & Scientific-Practical Fora

"Karst - the last "white spot" on the Planet Earth"

- ❖ Field studies and explorations of authentic karst areas that are under threat and protection (by law)
- Travelling Schools across a recently established route on model karst natural sites across Bulgaria;
- Biannual International Competitions dedicated to the value of karst phenomena and areas, holding unique cultural and natural value;
- Regular International Scientific- Practical Fora on karst protection;
- Piloting “ProKarsTerra-Edu” concept – an experimental education strategy, designed to serve the purpose of implementing the “learning by doing” & “hands-on” approach;

RATIONALE

- Bulgaria is one of the countries with the greatest number of biosphere reserves across Europe, ranked third following Russia and Spain (which are larger in terms of territory);
- The overall number of Biosphere Reserves in Bulgaria is 16 and they are dispersed all over the country;
- Most of the Biospheres Reserves cover areas, where Bulgaria has monumental and natural sites designated as World Cultural Heritage (e.g, The Rider of Madara, The Lake of Srebarna, Rila monastery, Pirin mountain, The Rock-cut Churches of Ivanovo);
- Some of the areas part of Biosphere Reserves are renowned for their diverse and unique karst, which covers 23% of the territory of Bulgaria, as a whole;
- UNESCO World Heritage List features two cultural sites (The Rider/Equestrian of Madara and Ivanovo Rock Monasteries), and two natural landmarks (Pirin National Park and Srebarna Lake) of pure karst origin or located in karst areas;
- Five of the 13 nominated sites and placed on the Indicative List of UNESCO World Heritage Programme, namely Magura Cave, Vratsa Karst Reserve, Russenski Lom Natural Park, the Central Balkan National Park (designated as a WH in 2018!) and the Natural Landmark “Stone Forest”, are also of karst character;
- Since the inception of the International Geoscience Programme of UNESCO, Bulgaria has expressed a strong interest in the inscription of sites of exceptional geological value, and in particular of karst origin (such are the Rocks of Belogradchik (NW Bulgaria) and the Vratsa Karst Reserve);

RATIONALE

- ❖ **Emerging risks and challenges related to the recorded progressive damage of the natural and cultural karst- specific sites of unique value, due to**
- **various natural phenomena and**
- **the lack of a holistic educational, systemic and managerial approach to protection and conservation:**

The multidimensional school – scientific and practically-oriented project aims:

- To increase knowledge about the nature, characteristics and diversity of karst and karst geosystems, based on specific examples from popular model karst areas (general public and students awareness – raising);
- To develop skills and competencies through direct participation in demonstrations during field trips, in field sampling experiments and subsequent laboratory analysis and discussions;
- To develop the so called “soft skills” in a natural environment, and especially cooperative and team work.
- To learn about the existing best practices (educational and nature-conservation-related in karst areas) applied in well-known and optimally-protected karst territories around the world (informal exchange of information among the travelling school members).
- To establish contacts for future cooperation in the field of karst and education and build – up a link between science and education in this area of study;
- To prepare specialists with adequate, relevant and up-to-date skills in conducting karst research and management of the karst-protected territories;
- To draw more prospect students and PhD candidates for HE specialized studies, dedicated to karst protection, management and conservation;
- To provide further methodological support to the staff attached to the various structures for the management of the natural parks and protected areas.
- Providing for much necessary synergy with the competent local and regional authorities.

International Competitions dedicated to the protection of karst areas

Types of stakeholders involved in the development, authoring, implementation

- Teachers and students from the UNESCO Global Network of Associated Schools; Teachers and students from the Innovative Schools network of the Ministry of Education and Science (Bulgaria), who focus on the phenomenon of karst in conducting action research as part of their project work with innovation approaches & tools;
- Teachers and students with permanent interest in the field of karst from specialized high schools and other non-specialized schools (state, municipal and private schools);
- Mentors/Scientific Advisors: researchers, young scientists and PhD students, from Academic/Scientific Institutions; state experts on sustainable development of karst territories; experts from NGOs with activities in the field of karst.
- Laureates in the Fourth edition of the International Competition “Karst under protection – Gift for the Future Generations”;

- Duration – 2019-2020; Number – over 300 application from 13 countries across and outside Europe;
- Types of beneficiaries e.g. students, doctoral students, teachers, parents, citizens, practically - everybody;
- Geographical spread – national and international;
- Resources – <http://prokarstterra.bas.bg/competition>;
- Lessons learned:

a) Outcomes

- ✓ Aroused interest toward the SD and the need for protection (methods, attitudes and practices) among young people, general public and specialists from various fields of study;
- ✓ More doctoral students for the karstology and geography field at university and the Academy of Sciences;

b) Successful factors/strong points

- ✓ Influential institutions from the field – geology/karstology/geography from around the world were involved as partners as of 2013;
- ✓ A National Scientific Fund had subsidized before the start of this primarily educational research-based initiative the building up of all facilities and equipment needed for providing safe access to the sites for implementing “learning by doing” and learning immersed in the environment.
- ✓ Collaborative support of several state /national institutions.

Shortcomings, What to correct next time

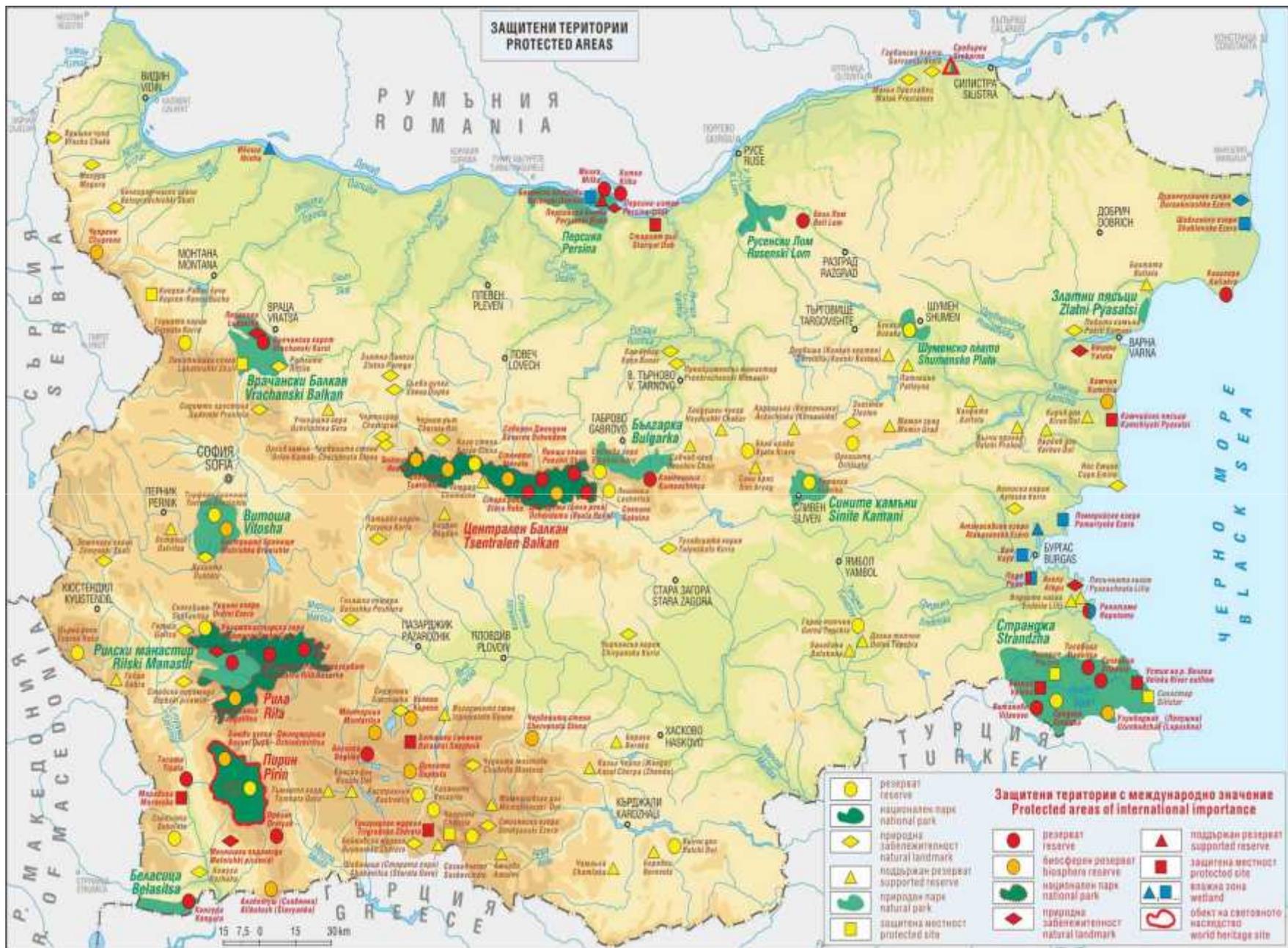
- ✓ Need for making use of the creative works and ideas and further develop them in the follow-up scientific-practical conferences

SUPPORTING ORGANISATIONS & INTERNATIONAL PARTNERS:

- Department of Natural Park “Shumen Plateau”
- Department of Natural Park “Russenski Lom”
- Department of Natural Park “Golden Sands”(at the Black Sea coast);
- Bulgarian Tourist Unit;
- Foundation Centre of Karstology “Vladimir Popov”
- National Museum of Natural History (BAS), Sofia
- National Museum “Earth and Man”, Sofia
- Bulgarian Ministry of Education and Science
- Bulgarian Ministry of Environment and Water (MEW)
- Executive Forests Agency to the Bulgarian Ministry of Agriculture and Food (MAF)
- National Commission of R Bulgaria for UNESCO
- Titan Zlatna Panega Cement (Company) – Bulgaria
- “GEOgraphy 21”- Scientific – Methodological Journal, Bulgaria
- Administration of Moravsky kras PLA, Blansko, Czeck Republic
- Cave Administration of the Czeck Republic
- Akiyoshi-dai Quasi-National Park (Mine, Yamaguchi, Japan)
- Akiyoshi-dai Museum of Natural History (Akiyoshi, Japan)
- Yamaguchi University, Japan
- International Union of Speleology (UIS)
- International Geographical Union (IGU)
- Zespól Parków Krajobrazowych Województwa Śląskiego, Poland

Model karst regions, where the major series of lectures were held with field observations, demonstrations and discussions during the Travelling Summer Schools :

1. Krushuna karst geosystem with Natural landmark “Maarata” (model karst research region of National Institute for Geography, Geodesy and Geophysics at BAS)
2. Natural Park “Russenski Lom” with the cave “Orlova Chukka” and the Archeological reserve “Rock-cut Churches” near the village of Ivanovo (UNESCO WHL);
3. Paleo-karst complex with caoline deposits between the villages Vetovo-Senovo and Kaolinovo
4. Natural park “Shumen plateau” with the “Bisserna” cave (model region of NIGGG-BAS);
5. Natural park “Golden Sands” with Aladja Monastery (at the Black Sea Coast near the city of Varna);
6. Karst morphological complex between cape Kaliakra and Tulenovo village (at the Black Sea Coast in NE Bulgaria, at the Kaliakra Cape)
7. Brestnica karst geosystems with Natural landmark “Saeva dupka” (model karst research region of NIGGG BAS).



**ЗАЩИТЕНИ ТЕРИТОРИИ
PROTECTED AREAS**

**Защитени територии с международно значение
Protected areas of international importance**

- | | | | | | |
|--|--|--|--|--|---|
| | резерват
reserve | | резерват
reserve | | поддържан резерват
supported reserve |
| | национален парк
national park | | биосферен резерват
biosphere reserve | | защитена местност
protected site |
| | природна забележителност
natural landmark | | национален парк
national park | | влажна зона
wetland |
| | поддържан резерват
supported reserve | | природен парк
natural park | | обект на световното наследство
world heritage site |
| | природен парк
natural park | | природна забележителност
natural landmark | | |
| | защитена местност
protected site | | | | |