

# Preparatory actions for the Rila-Verila-Kraishte Pilot Area

Part of Output T2.3

**Bulgarian Biodiversity Foundation:**

**Petko Tzvetkov, Petya Sheremetova, Andrey Kovatchev,  
Elena Tsingarska-Sedefcheva, Vassil Vassilev, Nadya  
Tsvetkova, Romyana Ivanova, Emiliya Vacheva**

**Black Sea NGO Network:**

**Emma Gileva, Romyanka Emanuilidu**

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## 1. Introduction

The implementation of the project SaveGREEN started in the middle of 2020. Since the project beginning, a number of measures to safeguard connectivity was introduced either by the Bulgarian Biodiversity Foundation (BBF) or the Black Sea NGO Network (BSNN) in collaboration with other project partners including strategic associated partners.

The scope included cooperation with and support for stakeholders, extensive monitoring, organization of local workgroup meetings, trans-national experience exchange and training events and field visit and other communication activities.

In this document, we briefly summarize the implemented/under implementation preparatory actions/measures for implementation of the Cross Sectoral Operational Plan (CSOP) of Rila-Verila-Kraishte Pilot area. Further down selected items of the CSOP logframe are listed followed by short descriptions of the implemented actions in the frame of SaveGREEN Project.

## 2. Selected Items from CSOP of Rila-Verila-Kraishte PA Logframe implemented during SaveGREEN Project

**THREAT/PRESSURE 7: Lack of coherent monitoring at landscape level and adaptation of solutions**

**Objective 7.2. Providing regular monitoring for Struma Motorway Section 1**

<b>(potential) Problems</b>	<b>Proposed Measures / Targets</b>	<b>Actions</b>
p1. Lack of systematic official monitoring of road mortality	<b>7.2.1. Providing regular and scientifically proved data on road mortality for Struma Motorway Section 1</b>	b. Develop a mobile application for citizens.
P2. Lack of systematic official monitoring of efficiency of defragmentation measures	<b>7.2.2. Providing regular and scientifically proved data on efficiency of defragmentation measures for Struma Motorway Section 1</b>	b. Installing facilities for constant collection of data – photo traps, sand strips, hair traps etc. c. Providing resources for implementation of monitoring plan as part of regular maintenance of road infrastructure
p4. New threats to connectivity are constantly occurring. Monitoring of concepts and projects considered for SEA and EIA must be constantly performed to prevent the risks for connectivity.	<b>7.2.4. Monitoring of SEA, EIA, AA decisions implementation</b>	a. Constantly monitor concepts and projects considered for SEA and EIA.

**OT2.3 Preparatory Actions for the Rila-Verila-Kraishte Pilot Area BG**

[www.interreg-danube.eu/SaveGREEN](http://www.interreg-danube.eu/SaveGREEN)

Project co-funded by European Union funds (ERDF)

**THREAT/PRESSURE 8: The support of stakeholders for a cross-sectoral & integrated approach at landscape level is reduced**

**Objective 8.1. Facilitate networking and develop a common platform and database**

<b>(potential) Problems</b>	<b>Proposed Measures / Tar-gets</b>	<b>Actions</b>
p1. There is a lack of regular communication between stakeholders and cross sectoral cooperation	<b>8.1.1. A platform for regional stakeholders is available as support for interaction</b>	a. Engage stakeholders and create local / regional networks of stakeholders, e.g., local/national work group/s; b. Develop a relevant database and an interactive platform.

**Objective 8.2. Facilitate information, awareness, education, communication**

<b>(potential) Problems</b>	<b>Proposed Measures / Tar-gets</b>	<b>Actions</b>
p1. Connectivity is a complex theme and hard to communicate with different type of stakeholders	<b>8.2.1. A dedicated outreach programme is set in place</b>	a. Create and share content across stakeholders – including through innovative methods; b. Engage professionals in communications and train stakeholders in communication; c. Engage public opinion vectors and media; d. Engage with universities / schools / research centres / businesses / NGOs / public bodies.
p2. The problem of connectivity is still not well known among general public.	<b>8.2.2. Awareness of general public on connectivity raised.</b>	a. Maintain species- oriented online communication on social media and include topics related to connectivity. b. Organize lectures, discussions and info days for general public.

**Objective 8.3. Support research and applied studies focused on connectivity; facilitate inter-sectoral capacity building and development of new professional opportunities (mainstream biodiversity to other sectors)**

(potential) Problems	Proposed Measures / Tar-gets	Actions
p1. Connectivity is not yet fully recognized as a major theme in research, applied studied or as an opportunity to support inter-sectoral capacity building	<b>8.3.1. Connectivity is promoted as an important topic of research and applied studies</b>	a. Facilitate integrated / inter-sectoral studies and research in environment, biodiversity, agriculture, forestry, hunting, tourism, transports, culture etc. b. Facilitate cross-sectoral capacity building and trainings based on stakeholders /local needs.

**Objective 8.4. Facilitate and support complementary initiatives (connectivity as one of the themes)**

(potential) Problems	Proposed Measures / Tar-gets	Actions
p1. Connectivity as a theme is not yet recognized as being of significant importance for the region	<b>8.4.1. Connectivity-sensitive initiative are being implemented</b>	a. Develop tailor-made funding facilities addressing local needs/opportunities aligned with local/regional strategies; b. Develop project-models and promote them as case-studies; c. Develop constant training, knowledge-exchange.

### 3. Description of Selected Implemented Actions

#### **THREAT/PRESSURE 7: Lack of coherent monitoring at landscape level and adaptation of solutions**

##### **Objective 7.2. Providing regular monitoring for Struma Motorway Section 1**

*7.2.1. Providing regular and scientifically proved data on road mortality for Struma Motorway Section 1*

- a. Develop a mobile application for citizens.

A mobile application for monitoring of road mortality for citizens was developed by Transport Research Centre Czech Republic CDV in collaboration with all project partners, a Bulgarian version was also prepared.

*7.2.2. Providing regular and scientifically proved data on efficiency of defragmentation measures for Struma Motorway Section 1*



*Image 1. Installed photo trap at Underpass in the Pilot area*

SaveGREEN worked with specialists to identify the needs on monitoring different species groups and to introduce connectivity-related parameters into monitoring. A GIS tool – qField & qGIS – was tested and developed and the first version of a monitoring plan was tested and implemented during SaveGREEN, to be further developed. Monitoring of functional connectivity was realized mainly by BBF by performing the field work and installation of camera traps. The structural monitoring was performed by EAA and BBF experts and consisted of the mapping of migration barriers and bottleneck.

- a. Providing resources for implementation of monitoring plan as part of regular maintenance of road infrastructure

A Local Monitoring Plan for Rila-Verila-Kraishte Pilot Area was developed and is under implementation now. Monitoring report for the period till the Project End was prepared and is available as a Deliverable T.2.3.2







*Images 2. Monitoring of mammals by applying different methodologies - recording of activity signs as well as by installation of camera traps in the area of the defragmentation facilities and the corridors*  
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#### 7.2.4. Monitoring of SEA, EIA, AA decisions implementation

- a. Constantly monitor concepts and projects considered for SEA and EIA.

Moreover, BBF, BSNN and other Bulgarian NGOs from For the Nature NGO Coalition are performing a systematic monitoring of the Bulgarian Ministry of Environment and Water database of SEA & EIA processes.

## **THREAT/PRESSURE 8: The support of stakeholders for a cross-sectoral & integrated approach at landscape level is reduced**

### **Objective 8.1. Facilitate networking and develop a common platform and database**

*8.1.1. A platform for regional stakeholders is available as support for interaction*

- a. Engage stakeholders and create local / regional networks of stakeholders, e.g. local/national work group/s;

Capacity building and networking and policy work has strengthened based on the various outputs and results of SaveGREEN partners. In this way Bulgarian partners were able to disseminate and anchor the project results with important stakeholders and institutions.

Most important in this sense were the two events:

**IENE Conference** in Cluj Napoca, Romania 19-23 September 2022, where SaveGREEN and individual experts substantially contributed to the content of the Conference, and

**the Side event during the EUSDR Annual Forum** where the Joint political declaration “Achieving functional biodiversity in the Danube-Carpathian Region by mainstreaming ecological connectivity” was celebrated and discussed.

The Declaration was endorsed by the Secretariat of the Carpathian Convention, the EU Strategy for the Danube Region “Water Quality” Priority Area (EUSDR PA 4), the “Environmental Risks” Priority Area (EUSDR PA 5), the “Biodiversity, Landscapes, Quality of Air and Soils” Priority Area (EUSDR PA 6), and representatives of the International Commission for the Protection of the Danube River (ICPDR) in July 2022. BSNN cooperated with the organisation of the conference and ensured the presence of two representatives of the associated strategic partner Executive Forestry Agency at the Agricultural Ministry of Bulgaria. BSNN and BBF have discussed the issue of ecological connectivity at meetings with stakeholders in the country and the needs for changes have been discussed in view of the development of the D.T3.2.2 Recommendations for relevant bodies regarding green infrastructure standardization, a process that has just recently started at the global level.

Local stakeholder working groups LWGM and less formal meetings with stakeholders have utilized the project achievements and have laid the foundation for better and more targeted communication with regional stakeholders. The presence and participation of representatives of the Associated Strategic Partners at cross-border events, such as the IENE 2022 conference in Cluj-Napoca, Romania and the Final Conference in Vienna, Austria as well as their participation in TNEWS in Bulgaria, Austria, the Czech Republic promoted personal contacts and exchange on topics of common interest related to connectivity on landscape scale and ecological corridors.

Meetings with local stakeholder groups have been organised by the partners, to promote project topics and facilitate experts and other stakeholders in receiving information about the project and using the project results and outputs. Though they did not have the full format of training, those meetings introduced stakeholders to SaveGREEN and the teams received first-hand feedback from the participants about suitable activities and measures.

The following stakeholders and local working groups meetings were held:

First LWGM with stakeholders was held on 30<sup>th</sup> of June 2022 in Dupnitsa followed by next one on 16.12.2022 in Dupnitsa and one in Sofia of FortheNature NGO Coalition on the same date.

### **LWGM NI**

The first meeting of the LWG of key representatives of Dupnitsa State Forestry Unit, the Local Hunters Association and the Municipality of Doupnitsa and the project partners was held on **30th of June** in the premisses of Dupnitsa Forestry Unit. The first draft of CSOP was presented as well as land use and management and hunting in the adjacent territories have been discussed. Other key stakeholders were identified.



*Image 3. LWG meeting held on 30.06.2022*

### LWGM N2

Meeting with 27 employees of the Forestry Unit and local hunters was made also on **16<sup>th</sup> of December** in the afternoon in the premises of the Dupnitsa Forestry Unit. The Bulgarian experts from SaveGREEN presented the specificity of Rila-Verila-Kraishte Pilot area, special facilities for crossing of animals of Struma Motorway, Section 1 and discussed with the participants proposals for their improvement. The participants from local institutions gave valuable output, which is included in CSOP and received giveaways, flyers and factsheets about the Bulgarian Pilot area.



*Image 4. LWG meeting held on 16.12.2022 in Doupnitsa*

### LWGM N3

On **16<sup>th</sup> of December** in the evening BBF organized a meeting with the members of FortheNature Coalition in Sofia– the most influential structure of environmental NGOs and civic groups in Bulgaria. NGOs and environmental professionals are important stakeholder groups promoting the messages and ideas of SaveGREEN. 30 representatives were acquainted with the measures for defragmentation which will be proposed by CSOP Rila-Verila-Kraishte and the results which were already achieved by the SaveGREEN project. They were very interested also by the good examples which Bulgarian coordinator of the project Petko Tzvetkov shared with them from the facilities of other foreign partners of SaveGREEN project. They discussed major issues like the necessity of changing legislation in Bulgaria in order to include protection of bio-corridors, the future development of Struma Motorway

– Section 3 and other important topics. Their valuable proposals are included in the present CSOP.



*Image 5. Meeting of FortheNature NGO Coalition/LWG stakeholders meeting held on 16.12.2022 in Sofia*

**Other stakeholders meetings held in the frame of SaveGREEN Project follows:**

**South-West State Enterprise Meeting on 29 September 2022 in Vithoshko-Studena State Hunting Unit**



*Image 6. Meeting at Studena, informing about the Save GREEN project among foresters from South-West Bulgaria*

Discussion of activities for the pilot area Rila - Verila – Kraishte has been popular with the employees of the South-West State Enterprise (SWSE) at the Ministry of Agriculture, associate strategic partner in the project. On 29 September 2022 the Bulgarian partners in collaboration with the SWSE team, presented to a gathering of foresters from South-West Bulgaria the goals and tasks of the project, as well as the main purpose of the activities carried out in the pilot area Rila - Verila - Kraishte.

The meeting at the Studena hunting farm was attended by 47 employees of the enterprise, who were familiarized with the local cross-sectoral operational plan being prepared, which aims to present measures to improve the functionality of the crossing facilities for wild animals at the Struma Motorway, the object of research and proposals within the project pilot area.

The participants shared opinions on ways to protect biological diversity in forests and noted the need to reduce the fragmentation of ecological corridors. Leaflets and fact sheets for the Bulgarian pilot area were distributed, which inform about the wildlife crossing facilities on the motorway and their function to improve the connectivity of the landscape. The participants also received gifts related to the pilot area, reflecting its relationship with the natural features of the area and reflecting the ecological implications and ideas of the project.



*Image 7. Site-specific giveaways distributed to the participants*

### **Stakeholder meetings in Varna on 21.12.2022 and 22.12.2022**

BSNN also promoted the project and its products and messages to experts and NGOs from its own list of contacts in the north and south east of the country in Varna on 21.12.2022 and 22.12.2022, enlarging the stakeholder platform for networking and review of measures of the cross sectoral operation plan.



Image 8. Meetings with NGO experts and media





Images 9. & 10. Promoting the project to education experts and administrations

## Final stakeholders meeting on 30.12.2022 in Dupnitsa.

Final stakeholders meeting was held in Dupnitsa on 30.12.2022 It was organised by the project partners and SWSE as a Strategic Associate Partner. The meeting programme contained introduction of the project final products, formal training and planning of joint activities beyond SaveGREEN. Discussions and exchange of ideas for good practices with the partners team continued in two working sessions.

### Objective 8.2. Facilitate information, awareness, education, communication

#### 8.2.1. A dedicated outreach programme is set in place

- a. Create and share content across stakeholders – including through innovative methods;

During the SaveGREEN project, we informed the stakeholders from the transport, forestry and game management, environmental protection sector on the approach of the project and we focused on interacting with local sectoral stakeholders we identified as key for ensuring functionality of the passageways on transport infrastructure – agriculture, game management, forestry and local communities. In parallel, we engaged local, national and international media to explain the

importance of the landscape approach and the impacts on connectivity and benefits for the people and wildlife from the construction and maintenance of defragmentation measures. Gaining trust of the stakeholders is a key element and before explaining what the project “needs or aim for” it is important to be able to understand as good as possible each stakeholder and to see what the project may provide for them. For a meaningful dialogue, language should not become a barrier in the sense that one needs to be accustomed with the specific terminology used within each sector. We found that being able to engage with some of the stakeholders led to a multiplying effect, as they acted as promoters of the concept within their own groups.

The partners have elaborated programme for promotion of SaveGREEN at Info Day on 5.10.2022 with interactive outdoor activities, entertaining talks and discussions engaged experts and young nature lovers.

About forty young people from two local secondary schools, teachers, experts, and representatives of the community were involved in varied information and demonstration outdoor activities that focused on the rich wildlife and beautiful nature of the nearby mountains that gave the name of the SaveGREEN pilot area Rila – Verila – Kraishte. Information was presented about the project and its goals, objectives, and achievements.

The young participants, sixth grade students of the "Georgi Izmirliiev" Secondary School and 11th grade students of the School of Mathematics "Acad. S. Korolyov" - Blagoevgrad, have learned a lot of new things about the wildlife species whose migratory routes cross the transport infrastructure of the pilot area near the city. They also discussed the measures proposed by the project to support the functionality of the ecological corridors and the protection of biological diversity.

Experts spoke about the ecological corridors used by wild animals in their migration, and explained about the dangers that car traffic and roads posed for them. The experts stressed on the need to provide crossing facilities for wildlife on transport infrastructure to facilitate their movements across large territories and avoid accidents.

Leaflets and fact sheets for the Bulgarian pilot area were distributed to the local community. They inform about the pilot area named after the surrounding mountains which is located on the 16-kilometer Lot 1 of the Struma Motorway and comprises 15 large facilities for wildlife crossing. Those facilities have been

constructed in a problem area to mitigate the bottle neck effect and improve chances of the species to migrate and survive in the long term.



Image 11. Outdoor activities at the Info Day



*Image 12. Forest in a cart for interactive learning and games*

The main highlight of **the Info Day** was an educational and entertaining activity held in one of Blagoevgrad's parks. It was conducted by eng. Vera Stanisheva, eng. Vanya Kamenova and eng. Daniela Belemezova who used their attractive climate van named "Forest in a Cart", hiding many secrets in the form of interactive wildlife related games. The foresters from SWSE were happy to share their knowledge with the young people, and engaged them in games dedicated to nature. The students were shown models of coniferous and deciduous trees, seeds and berries, herbariums. The purpose of this educational and awareness tool is to stimulate public interest in environmental issues.

The children took part in many games and activities, recognized animals by pictures as well as by their footprints, learned more about the sounds they make and many other interesting things. Along with the promotion of the SaveGREEN project, the information activity raised the awareness of the local community on wildlife and forest protection issues and taught the young people to love and care

for nature and the forest. For this purpose, the children received educational materials provided by the SaveGREEN partners.

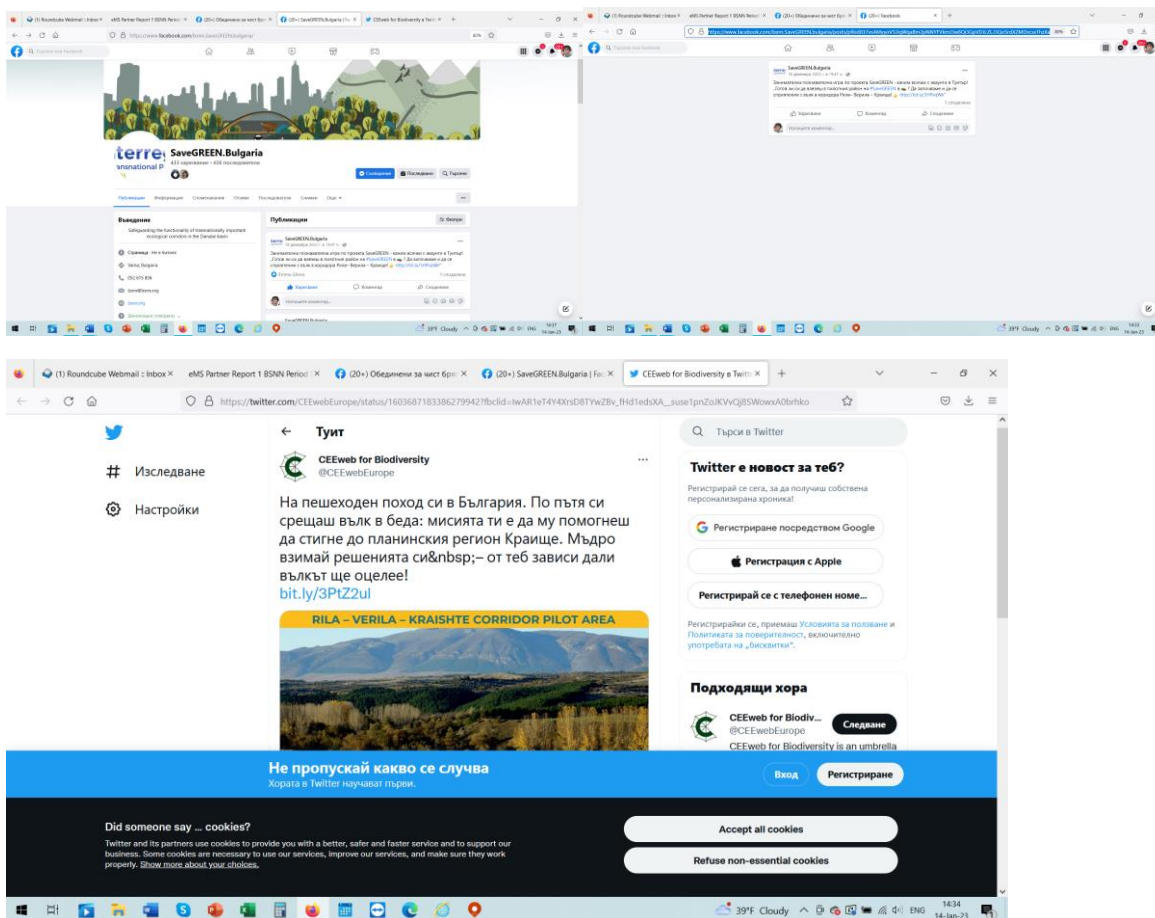
Particularly attractive for all young people and other representatives of the local community were the gifts related to the pilot area Rila – Verila – Kraishte, which reflect the connection of the zone with the natural resources and rich biodiversity of the region and make certain ecological suggestions.

Kraft paper tea bags with a mix of aromatic herbs from the surrounding mountains, artistically designed and branded according to the project requirements, and natural-colored cotton shopping bags with an image of a crossing facility, remain as a memento of the info day and emphasize the connection to the pilot area and local nature. The youths also received branded t-shirts with the image of the wildlife bridge as a gift souvenir of the interesting and engaging public event.

### **Promotion of Twitter Adventure in Bulgarian and link to the game on the site of CEE web for Biodiversity**

BSNN and BBF have been involved in the development of a Twitter adventure in the MYOS pattern (“Make your own story”) for online promotion about the project and the Rila – Verila – Kraishte pilot area and the topic of green infrastructure in a playful, yet informative manner. The Twitter adventure gives users the ability to make their own decisions to move on to the next chosen step (i.e. tweet). The information is presented with a short introductory text and gives the user two options, with the intention of giving the chance to click on a right or on a wrong answer, in accordance with the project’s contents, objectives, background, potential outcomes, etc. The Twitter Adventure was translated in Bulgarian and launched by the partnership though through technical limitations related to payment for Twitter advertisements in Bulgaria the Bulgarian language game was hosted by the CEE web. Bulgarian partners have promoted the game on Facebook and disseminated information about it though Twitter use in Bulgaria is very limited and due to the technical reasons BSNN was not able to launch it from its own account. However the Facebook posts, which promoted the Twitter adventure games – both Bulgarian and in English versions reached over thousands users of the social media and gave a good dissemination of the interesting game.

<https://www.facebook.com/bsnn.SaveGREEN.bulgaria/posts/pfbid037vsAMyyoVSJ JqWqaBm2pNNYFVkmJ3w8Qi3GpVDJLZLJ3QoSrdXZMDxcxsThzXarDI>



Images 13, 14. & 15. An interesting educational game on the SaveGREEN project - we invite everyone with Twitter accounts!

"Ready to enter the #SaveGREEN pilot area in ? Let's start and make friends with a wolf in the Rila-Verila-Kraishte corridor! <http://bit.ly/3HPvqWe>"

- b. Engage professionals in communications and train stakeholders in communication;

The SaveGREEN project partners have applied joint efforts to improve the capacity of experts, administrations, and the media in Bulgaria on the topic of ecological corridors and their relationship with the impact of transport infrastructure on landscape connectivity, biodiversity conservation and climate change mitigation. Education experts, teachers, media have also been in the focus of partners' attention.

Regular production of information materials about the project, connectivity and ecological corridors has been part of the partners routine communication with media. The partners own websites have been used as communication tools

## OT2.3 Preparatory Actions for the Rila-Verila-Kraishte Pilot Area BG

[www.interreg-danube.eu/SaveGREEN](http://www.interreg-danube.eu/SaveGREEN)

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promoting the project. They host numerous articles and news items dedicated to the project. Articles from the DTP website of SaveGREEN project about the definition of green infrastructure, how it differs from the gray infrastructure, best practices from Europe and around the world were translated in Bulgarian and published on the official website of the Bulgarian partners in order to raise awareness on the subject.

Social media are also employed in the project promotion. All news items and stories produced, are covered through social media channels too. As other relevant or related information to the project, informative short stories were shared via the social media channels of both partners.

BSNN uses a special project FB profile to regularly cover project events, activities, communication. During the project periods there are lots of posts covering – meetings with stakeholders, info day press field trip IENE conference, launch of Twitter Adventure in Bulgarian and English.

<https://www.facebook.com/bsnn.SaveGREEN.bulgaria>

Bulgarian Biodiversity Foundation uses its official Facebook page with more than 16 000 facebook users and posted regular posts about the importance of the green infrastructure, the specificity of the Bulgarian pilot area Rila-Verila-Kraishte, interviews with Petko Tzvetkov for the radio and special broadcasts for online and national Bulgarian Televisions, photo-galleries, pictures, media articles and posts.

<https://www.facebook.com/biodiversity.bg>

Posts on both partners FB pages reached over 17 000 Facebook users, disseminated very well the messages and achievements of SaveGREEN project.

c. Engage public opinion vectors and media;

Regional and national media were very important stakeholders for SaveGREEN project as the topic for implementing green infrastructure is not very familiar in the Bulgarian society. That is why the Bulgarian partners worked very closely with media trying to engage them at every step of the process. Press releases about the Transnational Workshop for exchanging experience, organized by the Bulgarian partners in Dupnitsa, **the InfoDay**, organized in Blagoevgrad and **the Press field trip** were sent to media in order to attract their attention to the sensitive topic. They

responded very well and lots of publications in local and national media were published by them raising the awareness of the importance of special facilities for animals and the proposals for improvements of these facilities to the very high level. Total of over 60 different publications in online print, radio and TV. Interviews with the SaveGREEN experts and two broadcasts in televisions were dedicated to different topics from the SaveGREEN activities – transnational workshops in all countries, InfoDay and press field trip. Articles and interviews of the coordinator for Bulgaria Petko Tzvetkov were also published on Facebook pages, used for dissemination of the project activities and reached thousands users.

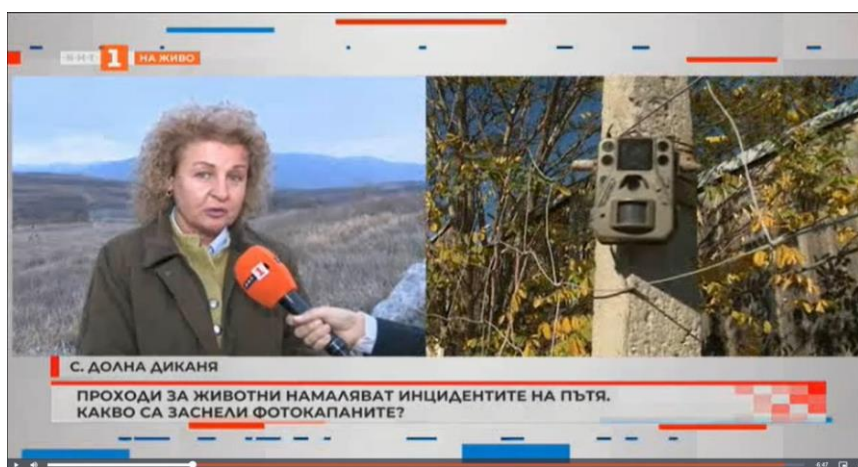


Image 16. Presenting the importance of wildlife passages for the security of animals and people in Rila-Verila Kraishte Pilot area by Vanya Kamenova, SWSE - Associate Strategic Partner in SaveGREEN Project to the wider audience of Channel 1 of the National Public Television © BBF

The Bulgarian partners and SWSE on 27.10.2022 organised a Press field trip for regional and national media to present the conclusions and recommendations based on monitoring of the wildlife crossing facilities along Lot 1 of the Struma Motorway, part of the SaveGREEN project pilot area in Bulgaria.

The media visited the pilot area situated along the important Struma Motorway in the south west of the country, part of the Pan-European Corridor IV and E79, important EU priority project. The area named Rila – Verila – Kraishte after the surrounding mountains is located on the 16-kilometer stretch of the motorway and comprises 15 large facilities for wildlife crossing. Those facilities have been constructed in a problem area to mitigate the bottle neck effect and improve chances of the species to migrate and survive in the long term.

The overpass for bears and the underpass conditionally designated for the passage of wolves are two of the facilities subject to SaveGREEN monitoring activities. The



nearby viaduct due to its size, is one of the convenient places for animals to cross the road.

The BBF SaveGREEN coordinator Petko Tzvetkov said that the main task of the project was to monitor some of the facilities, investigate the effectiveness of the mitigation measures and suggest improvements based on ideas from experts and consultation with local stakeholders from the nearby towns and villages. The project aims to support the functionality of the ecological corridors, the natural migratory routes of species that often intersect with transport infrastructure, by proposing practical solutions.



*Image 17. BBF Petko Tzvetkov interviewed for National TV*



*Image 18. Media representatives at the overpass for large mammals on Lot 1 of Struma Motorway*

Data is being collected on how useful those facilities are. For that purpose, photo traps have been placed to register and document the passage of animals. At the overpass, the passage of mainly smaller animals - jackals, foxes, and squirrels - has been observed. The neighbouring facility has been found to be used as passage by otters.

Large animals have been observed rarely. Red deer as well as a wild boar have been spotted near the highway. The underpass for wolves is one of the most intensively used facilities. Wild pigs, badgers and other wild animals have been observed there. Data collected so far suggest that mostly young animals pass through these facilities.

According to experts, the wildlife crossings need improvements, one of them is to plant bushes and low trees in the area of the overpass so that the animals can feel in an environment like their natural one. It is important that they should not encounter barriers on their way, but should pass unhindered. Inspection of one of the facilities shows that the nets of the fences are not high and dense enough and must be firmly fixed to the ground to prevent smaller animals from getting on the road.

The SaveGREEN project partners have applied joint efforts to improve the capacity of experts, administrations, and the media in Bulgaria on the topic of ecological corridors and their relationship with the impact of transport infrastructure on landscape connectivity, biodiversity conservation and climate change mitigation. The filed trip received excellent coverage with over 30 reports and publications,

including Channel 1 of the National TV, National radio etc. and many other media outlets.

- d. Engage with universities / schools / research centers / businesses / NGOs / public bodies.

As part of SaveGREEN capacity building program BBF organized three workshops/trainings for different groups and one day field visit to the pilot area of Rila-Verila-Kraishte.

The first two workshops were held in Sofia, one in the University of Architecture, Civil Engineering and Geodesy UACEG held on 14.12.2022 and second in the Faculty of Biology of Sofia University SUFB held on 15.12.2022. The third workshop was held in Dupnitsa in the premises of the Dupnitsa Forestry Unit on 16.12.2022.



Image 19. Training in UACEG on 14.12.2022



Image 20. Training in SUBF on 15.12.2022

Each workshop consisted of up to 4 hours programme mix of theoretical and practical aspects of ecological connectivity and SEA/EIA/AA procedures to provide ecological connectivity for transport infrastructure. After the main program there were vivid and fruitful discussions.

On 18.12.2022 one-day field visit of the pilot area of Rila-Verila-Kraishte was held. The one day field visit consisted of half a day visit of defragmentation facilities/mitigation measures in the pilot area as well as lectures for those that have not taken part in the theoretical workshops. The participants were introduced to the purpose and the characteristics of defragmentation measures including overpass, underpass, viaduct and fencing. The land use of adjacent areas and the landscape were also discussed. BBF team and experts presented the monitoring of functioning of this mitigation measures set up as a part of SaveGREEN project.



Image 21. Field visit, Overpass for bears, Rila-Verila-Kraishte PA

In total 81 different participants took part in the capacity building programme. For the majority of the participants, it was the first time when they got acquainted with ecological connectivity issues and visited/were introduced to defragmentation/mitigation measures in practice.

### *8.2.2. Awareness of general public on connectivity raised.*

The info day and media field trip have brought the local public and the media in close contact with the topic as they have been able to visit and see the wildlife crossing facilities on the Struma Motorway in the pilot area and to receive first hand experience of the area and the necessity to implement relevant measures.

The area named Rila – Verila – Kraishte after the surrounding mountains is located on the 16-kilometer stretch of the motorway and comprises 15 large facilities for

wildlife crossing. Among them are an overpass for large mammals, an underpass for medium and small mammals and a viaduct. There are bridges with dry paths and culverts designed as passages for amphibians. As mortality reducing measures, there are "rabbit fences" and guiding amphibian concrete fences. Those facilities have been constructed in a problem area to mitigate the bottle neck effect and improve chances of the species to migrate and survive in the long term.

The overpass for bears and the underpass conditionally designated for the passage of wolves are two of the facilities subject to SaveGREEN monitoring activities. The nearby viaduct due to its size, is one of the convenient places for animals to cross the road.

Those facilities are now very familiar to the local public and their function is explained and demonstrated by various outreach activities, comprehensible to all representatives of the local public and experts.

#### Promotional materials

Particularly attractive for all people and representatives of the local community have been the gifts related to the pilot area Rila – Verila – Kraishte, which reflect the connection of the zone with the natural resources and rich biodiversity of the region and make certain ecological suggestions.

Kraft paper tea bags with a mix of aromatic herbs from the surrounding mountains, artistically designed and branded according to the project requirements, and natural-colored cotton shopping bags with an image of a crossing facility, remain as a memento of the info day and emphasize the connection to the pilot area and local nature. They are gifts and souvenirs from interesting and engaging public events.



Image 22. Site-specific giveaways for schoolchildren in Blagoevgrad



Image 23. Promotional material of ecological connectivity with a good potential to become local product and to support local economy/initiatives at the same time spreading information about the bio corridors and their role © BBF

### OT2.3 Preparatory Actions for the Rila-Verila-Kraishte Pilot Area BG

[www.interreg-danube.eu/SaveGREEN](http://www.interreg-danube.eu/SaveGREEN)

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**Objective 8.3. Support research and studies focused on connectivity; facilitate inter-sectoral capacity building and development of new professional opportunities (mainstream biodiversity to other sectors)**

*8.3.1. Connectivity is promoted as an important topic of research and applied studies*

a. Facilitate integrated / inter-sectoral studies and research in environment, biodiversity, agriculture, forestry, hunting, tourism, transports, culture etc.

**Although recognised as a critical theme, connectivity is not properly addressed by research and applied studies.**



*Image 24. Studying functional connectivity of the defragmentation facilities © BBF*





*Image 25. Discussing the impact of barrier effect of noise and light over the migrating animals during the SaveGREEN international workshop in Rila-Verila-Kraishte pilot area © BBF*

SaveGREEN paired scientists with local managers in developing monitoring tools; an international workshop organized in Dupnitsa 11-12 May 2022 supported by SaveGREEN aimed for a better knowledge transfer between experts and stakeholders;

- b. Facilitate cross-sectoral capacity building and trainings based on stakeholders /local needs.

**Capacity building programme** has been developed and partially implemented including ToolBox for SEA/EIA/AA, Handbook on best practices, 4 Training events (See also above)

Capacity building programme has been developed developed and partially implemented including ToolBox for SEA/EIA/AA, Handbook on best practices, 4 Training events The programme comprises various elements.

The Capacity-building programme comprises three parts, (1) the Toolkit for Ensuring Sustainable Use and Management of Green Infrastructure in Strategic

Environmental Assessments (SEA) and Strategic Environmental Assessment (SEA), (2) the Handbook of Best Practices, and (3) the training schedule that has been adapted to national needs for the national capacity-building training events under WPT3. The Capacity-building Programme addresses public authorities and decision makers, consultants in the field of environmental assessments, and students. SEA and EIA are the two main instruments that ensure the integration of environmental considerations in the preparation of plans and project throughout the Member States and recently also for Ukraine, both procedures allowing the participation of all relevant stakeholders. Impact assessment is a technical process with many difficulties regarding the choice of methodologies, the assessment of alternatives, the involvement of stakeholders or the integration of other EU Directives requirements. Recently, requirements have been added regarding the adaptation to climate change or the need for an integrated assessment of the impact on Green Infrastructure, which is difficult without a step-by-step and easy to use toolkit. The Handbook allows for a better understanding of human impacts on Green Infrastructure and a better identification and implementation of measures to prevent and reduce impacts on ecological connectivity underpinned with many case studies from across Europe. The tools integrate the experience of TRANSGREEN (Guideline on Wildlife and Traffic, EIA training package) and ConnectGREEN (Training package on identifying and managing ecological corridors) projects, as well as other EU projects related to SaveGREEN activities.

The programme uses methodology that provides guidance for the analysis of connectivity focus areas, the identification of connecting elements in the landscape and the use of these structures by wildlife. It therefore represents an evidence-based decision-making aid and source of information providing stakeholders, land managers, administration, policy makers, experts and communities with the tools and the knowledge which they need to ensure the availability of species migration and dispersal possibilities based on a qualitative assessment of habitats and connectivity structures. The Methodology was tested in the eight pilot areas, feedback on the first draft was integrated thereafter. Thus, the Methodology represents a robust system easy to use in other parts of Europe.

SaveGREEN Technical Application Toolbox for monitoring ecological corridors in bottleneck areas describes the specification and the data model as well as software components that are necessary for the implementation of a consistent and comparable monitoring of functional and structural connectivity in ecological corridors. Moreover, it shows how data from field sampling can be integrated into online platforms and online services to enhance knowledge exchange. The Toolbox

supports a consistent and quality-assured storage of all data created within the framework of the project, supports the fieldwork and monitoring of functional connectivity within the pilot areas, guarantees a consistent data flow between fieldwork and IT infrastructure, and provides the basis to publish the data to the public. The whole implementation of the SaveGREEN Technical Application Toolbox is based on open-source technologies. This is the only way to ensure the reuse of the developed tools in other projects without additional licensing costs. Thus, this approach can be easily implemented by different institutions and/or environmental agencies. All resources are at : <https://metadata.savegreen.at/> <https://maps.savegreen.at/> <https://ccibis.org/data-catalogue-2>

#### **Objective 8.4. Facilitate and support complementary initiatives (Connectivity as one of the themes)**

##### *8.4.1. Connectivity-sensitive initiative are being implemented*

The Cross-sectoral Operational Plan of Rila-Verila-Kraishte Pilot Area development and implementation represents such an connectivity sensitive initiative. The Plan establishes connections with all strategic planning documents and relevant initiatives that create solid background for recognising, protection and restoration of ecological connectivity in the Pilot area and other regions and at national level in Bulgaria. It could serve as a source of ideas and concrete proposals for fundraising and implementation of further projects and programmes.

## **4. Lessons learned**

To briefly summarize the lessons learnt mentioned in the individual paragraphs, the following should be highlighted.

- **Monitoring activities are crucial for informed decision making.** Knowledge based intervention was needed to protect the permeability of certain areas. However, constant systematic evaluation of permeability and existing threats requires extensive resources. Future monitoring must be systematically planned and supported by reliable funding.
- Establishing the **local stakeholders working group helped to exchange knowledge and clarify the points of view of different stakeholders.** Hidden problems might be revealed when discussing in a group with broad interests. A combination of non-intrusive long-term communication and

detailed specialized discussion on specific topics seems beneficial for future progress.

- NGO sector is substituting the role of state in some ways. Although the support and controlling role of NGOs will be still beneficial, **state authorities** should undertake its key role of responsibility so that migration corridors are identified, legally protected and implemented on the ground systematically. This requires **proper education, capacity building including development of national guidelines and regulations and their systematic implementation**. On the other hand, **NGOs proved to be effective in certain field work activities** focused on monitoring or prevention of poaching **and in public outreach**.

## 5. Conclusions

The implementation phase introduced a range of new activities towards protecting the landscape permeability. Long-term ongoing activities were also realized.

The local working groups and other stake holders' meetings and events were organised and held and encompassed the representatives of relevant sectors such as infrastructure, nature conservation, national and local authorities and NGO sector. The members contributed to the finalization of the CSOP.

Monitoring of functional connectivity was realized mainly by BBF by performing the field work and installation of camera traps. The structural monitoring was performed by EAA and BBF experts and consisted of the mapping of migration barriers and bottleneck. Moreover, BBF, BSNN and other Bulgarian NGOs from For the Nature NGO Coalition are performing a systematic monitoring of the Czech database of SEA & EIA processes.