



Output T2.3

Preparatory Actions for Novohrad-Nógrad Pilot Area

WWF SK

Romana Uhrinová

Marek Žiačik

Barbara Immerová

December 2022

Contents

1. Introduction.....	3
2. Logframe.....	4
3. Descriptive part.....	11

1. Introduction

The document “*Preparatory Actions for the Novohrad-Nógrad Pilot Area*” includes realization activities started during the SAVEGREEN project implementation. Most activities are based on the Cross-Sectoral Operational Plan, which presents specific answers to the challenges related to safeguarding the connectivity of migration corridors in the Novohrad region - specifically in the Slovak part of the Novohrad - Nógrad pilot area of the SaveGREEN project. The Novohrad pilot area stretches over an area of almost 87 000 hectares. Its southern part connects with the Nógrad pilot area, where the Hungarian partner implements the project. In Slovakia, the project is implemented mainly in the districts of Detva and Lučenec.

As not much data were collected about the Novohrad pilot area from before, we had to rely on data from the monitoring done within the project. Measures for improving connectivity are proposed based on stakeholders’ knowledge. Several issues were identified for almost every sectoral area. As this is a complex task, only several activities have started to be implemented within the lifetime of the project, others will be done in the future.

2. Logframe

THREAT / PRESSURE <i>What do we want to address?</i>	GENERAL OBJECTIVES <i>What do we want to achieve?</i>	Problems	Measures	Actions
1. The increased barrier effect of new Transport and other Linear Infrastructure (TLI) projects	01. Provide supporting data for new infrastructure projects	P1: Operation of the new sections of the R2 and R7 expressways and the rail electrification project will increase the barrier effect	01.1 Planning and construction of suitable migration objects (viaducts, green bridges, tunnel solutions, etc.) with parameters suitable for the selected target groups of animals	d) Update of existing manual for technical specifications of migration facilities (<u>TP_04/2013 MIGRAČNÉ OBJEKTY PRE VOĽNE ŽIJÚCE ŽIVOČÍCHY Projektovanie, výstavba, prevádzka a oprava</u>) on the latest scientific knowledge
		P2: There is little experience in Slovakia with integrating objects important for connectivity into the landscape to increase their	01.2 Landscaping of underpasses and overpasses (i. - railway / ii. - motorway)	a) Develop guidelines for landscaping and build capacity through exchange of know-how

		<p>functionality for wildlife. Capacities related to the management of sensitive areas are low. Competences and rules for land management are not established.</p>		
		<p>P3: Insufficient experience with the protection or appropriate management of land adjacent to migratory features by integrating connectivity-relevant land into the landscape to increase its passability.</p>	<p>01.3 Ensure appropriate management of land adjacent to migration features.</p>	<p>a) Raise the awareness of relevant stakeholders in the field of landscaping and maintenance of land in the vicinity of facilities, considering the latest knowledge;</p>
	<p>1. Maximize the functionality of underpasses (all fauna passages)</p>	<p>P1: Inadequate technical provision of underpasses for selected animal species</p>	<p>1.1.1 Increasing the migration potential in existing underpasses of linear infrastructure by their appropriate modification</p>	<p>a) Mapping and evaluation of the passability of existing underpasses on linear infrastructure</p>
<p>2. The barrier effect of existing Transport and Other Linear Infrastructure (TLI)</p>	<p>1. Safeguard the permeability of existing transport infrastructure (including the increase in the permeability of</p>	<p>P1: Reconstruction/upgrading of roads may lead to increased barrier effect with a negative impact on</p>	<p>2.1.1 Informing the road authorities about critical sections from the point of view of animal migration</p>	<p>a) Identify critical points on the roads in terms of migration, inform road managers about them, including the</p>

<p>(including increasing barrier effect caused by structural interventions: maintenance or upgrading within the same category/class of roads, railways, navigable channels, waterways, canals, power lines, and pipelines)</p>	existing infrastructure where possible)	animal migration in critical sections.	as well as about possible solutions to improve the current situation	proposal of measures to mitigate the impacts of the reconstruction/modernization of the I, II, III class road in critical sections;
		<p>P2: Increasing traffic volume and speed on roads can lead to an increase in the barrier effect with a negative impact on animal migration</p>	<p>2.1.2 Changing behavior and increasing driver vigilance to prevent vehicle-animal collisions</p>	<p>b) Prepare an awareness raising campaign for drivers</p>
	<p>3. Safeguard the longitudinal permeability of rivers (including the increase in the permeability of existing infrastructure, where possible)</p>	<p>P1: Small dams create a barrier for aquatic animals. Regulated watercourses pose restrictions to aquatic animal migration (e.g. dams, stepping stones)</p>	<p>2.3.1 Removal of identified dams/steps/channels or passage through fishways</p>	<p>a) Identify and prepare a list of critical stream reaches with barriers; c) Create a working group of experts to promote bio-ecological solutions for migration barriers on watercourses according to the methodology of the</p>

				Ministry of Environment of the Slovak Republic;
3. Linear transport infrastructure (including electric power lines) causing <u>wildlife mortalities</u>	3. Warning drivers in high accident/road-kill areas	P1: Vehicle collisions with wildlife and damage incidents are frequent due to insufficiently marked critical sections	3.3.1 Installation/operation of preventive measures (traffic signs, signal signs, etc.)	a) Identify and prepare a list of critical road sections in terms of migration; b) Reduce the speed limit to 70 km/h; d) Install "Beware of Wildlife" signs in both directions to alert drivers to increased animal presence, including modern signage
	10. Collect and process the data to identify the critical sections of roads, motorways, and railways	P1: Data on collisions with wildlife on roads, highways, and railways are not centrally and systematically collected, processed, and used to ensure the functionality of migration corridors	3.10.1 A central database of data on wildlife collisions on roads, highways and railways are systematically used to ensure the passability of migration corridors, which will be part of the central	a) Collect data from relevant stakeholders b) Develop and use an integrated database as a decision-making tool for reducing collisions with wildlife.

			geodatabase from Objective 3.12.	
4. Reduced landscape permeability caused by changes in land-use	1. Prevent changes in land use towards less permeable categories (including compensatory measures in terms of connectivity)	P1: Municipal development plans (whether or not consistent with the UDP) may compromise the passability of identified migration corridors, including the passability of underpasses and overpasses	4.1.1 Regulation/restriction of spatial development by means of spatial planning instruments (e.g. in the form of binding regulations)	a) Participation in the preparation of new legislation, in particular, the Nature and Landscape Protection Act; and new the Landscape Planning Act. c) Ensure protection of identified migration corridors in the spatial planning of affected municipalities / VUCs
5a. Reduced landscape permeability caused by land management – fencing	1. Fencing regulations and promoting unfenced areas	P1: Fencing is not regulated in relation to the conservation of identified migration corridors	5a.1.1 Introduction of fence regulation and implementation of measures to open up fences in order to maintain the functionality of identified migration corridors	d) Educate permitting officials on the importance of regulating the extent of fencing in light of the needs of migratory animals

<p>6a. Other anthropogenic activities - game management - may reduce landscape permeability</p>	<p>1. Develop coherent game management plans and apply EIA/AA procedures in order to avoid-mitigate-compensate for impacts</p>	<p>P1: Inappropriate game management can reduce the permeability of the landscape (e.g. hunting use of land close to migratory objects reduces the willingness of animals to use them...)</p>	<p>6a.1.1 Ensuring appropriate hunting management to maintain the functionality of migration corridors</p>	<p>d) Propose the establishment of non-hunting areas within and in close proximity to identified migration corridors and implemented migration objects within the meaning of the Hunting Act</p>
<p>6b. Reduced landscape permeability caused by other anthropogenic activities - human-wildlife conflicts</p>	<p>2. Facilitate traditional livestock farming practices</p>	<p>P1: Although traditional shepherding (with using of traditional preventive measures) is a well-established and functional method, its use is only slowly being promoted</p>	<p>6b.2.1 Promote traditional shepherding with using of traditional preventive measures in and around identified ecological corridor areas.</p>	<p>e) Organise an information campaign on the benefits of traditional shepherding</p>
<p>8. Reduced support from stakeholders at the landscape level for an integrated ecosystemic approach</p>	<p>1. Facilitate collaboration and create a shared platform and database</p>	<p>P1: Lack of cooperation between stakeholders in sharing data on animal migration or occurrence</p>	<p>8.1.1 Create a platform and database for information sharing</p>	<p>a) Establish working groups at local and national level (long-term)</p>

	<p>2. Facilitate the spread of information, awareness, education, and communication</p>	<p>P1: The issue of landscape permeability is still not well-known among the general public.</p>	<p>8.2.1. Increase awareness among the general public.</p>	<p>a) Continue species-specific web and social media communications, including the topic of landscape permeability.</p>
--	--	--	--	---

Table 1: Overview of the started activities from the cross-sectoral operational plan

3. Descriptive part

The descriptive part of the document includes short information about the implementation of the actions which has started during the project duration. Actions are numbered according to the table codes.

- ❖ **Action 1.01.1.c Update the existing manual on technical specifications of migration facilities (TP MIGRAČNÉ OBJEKTY PRE VOĽNE ŽIJÚCE ŽIVOČÍCHY Projektovanie, výstavba, prevádzka a oprava) with the latest scientific knowledge**

During meetings with relevant stakeholders, the need to update the technical parameters of migration objects was raised as a substantial issue. In Slovakia, this topic falls within the agenda of the Slovak Road Administration (Slovenská správa ciest, SCC) and the relevant document covering these technical parameters is called *“Technical parameters of wildlife migration objects”* (hereinafter referred to as "TP"). The purpose of the document is to determine the procedure and scope of work in the design of migration objects during the preparation of project documentation and to determine the basic technical and ecological parameters of the proposed objects. The last version was prepared in 2012. Thanks to a number of relevant stakeholders, who also became members of the SaveGREEN working group, it was possible to contribute to its update in 2022. It is currently being finalized.

- ❖ **Action 1.01.2.a Develop guidelines for landscaping and build capacity through exchange of know-how**

During the discussion on the TP update, WWF proposed to include the definition of the migration object as follows: *“granting the status of a migration object to a construction such as an underpass or overpass, which fulfills the function of increasing the permeability of the road and therefore allows the migration of the affected categories of animals”*. The proposal was accepted. The addition of this definition to the TP is a good basis for incorporating the protection of migratory objects and their adjacent land into municipal land use plans and emerging

methodologies, which are being prepared for the new Landscape Planning Act. Several members of the SaveGREEN working group are members of the working group for the development of these methodologies and can thus directly promote the interests of the protection of migration corridors.

❖ **Action 1.01.3.a Raise the awareness of relevant stakeholders in the field of landscaping and maintenance of land in the vicinity of facilities, considering the latest knowledge; 5a.1.1.d Educate permitting officials on the importance of regulating the extent of fencing in light of the needs of migratory animals**

There was a discussion within the Spatial Planning Working Group (27/10/2022) on the need for and delivery of training for local competent authorities. Training should be aimed at raising awareness of the need to maintain ecological connectivity of the landscape, regulate the extent of fencing, and protect the adjacent land from migratory objects. The self-governing region has expressed an interest in conducting training for relevant stakeholders in this area at the beginning of 2023. WWF and the State Nature Conservancy of the Slovak Republic were approached to present this topic from an ecological point of view.

❖ **Action 1.1.1.a Mapping and evaluation of the passability of existing underpasses on linear infrastructure**

During the project duration, WWF monitored three bridge structures on a selected section of the existing expressway R2 Zvolenská Slatina - Kriváň. When designing this section prior to construction, the construction of appropriate mitigation measures to reduce the negative impact of the expressway on animal migration was not taken into consideration. These bridge structures were built only as a technical solution to bridge the river and existing crossroads. Monitoring has demonstrated the permeability of these underpasses, which is positive for maintaining wildlife migration.

However, the permeability of the bridge structures near the village of Stožok is threatened by the new spatial plan, which would cause the closure of this area and thus prevent migration between the two main core areas. WWF has already taken the first steps to open a discussion regarding the modification of the proposed change to the Stožok spatial plan with regard to preserving the permeability of the

landscape by removing the inconsistency between the municipal master plan and the regional spatial plan, which defines a regional bio-corridor in this area.

The railway underpasses in the pilot area were also mapped. One was identified as completely impassable (proved by trodden animal paths alongside the underpass towards the tracks). The elimination of the problem and the reconstruction of the underpass was discussed with representatives of the Slovak Railway. The reconstruction of the mentioned section is planned, but no date has been set yet. We will continue to monitor the process.

❖ **Action 2.1.1.a Identify critical points on the roads in terms of migration and inform road managers about them, including the proposal of measures to mitigate the impacts of the reconstruction/modernization of the I, II, and III class road in critical sections**

Critical sites in terms of increased mortality as well as in terms of safeguarding their passability have been identified for the roads (Class I, II, and III) as well as for built sections of the R2 expressway. Slovak Road Administration, as the administrator of Class I roads, has agreed to take this information into consideration when planning any preventive measures in the future.

❖ **Action 2.1.2.b Prepare an awareness-raising campaign for drivers**

WWF has prepared a Christmas campaign focusing on migration corridors. The campaign also includes a video highlighting the possibility of a collision with wildlife and informs drivers to be cautious on their way home and to be mindful of the animals that are also migrating "home". In addition to the video, the campaign also includes a radio spot during which selected critical sections for wildlife collisions are announced during the traffic service throughout the day. At the end of each day, an announcement is broadcast with the message *"Keep in mind that animals want to go home for Christmas, too. It is also thanks to your contributions that we can protect the roads they use to travel through our country. Thank you for helping us to protect them. Have a safe journey home, from the World Wildlife Fund, WWF Slovakia."* The Christmas campaign was not funded by the SaveGREEN project, but outputs from the SaveGREEN project were included in the development of the campaign.

❖ **2.3.1.a Identify and prepare a list of critical stream reaches with barriers;**

As an output of the monitoring of aquatic species, a list of barriers preventing the migration of water-bound species has been prepared. Further actions have also been proposed for each identified barrier.

❖ **2.3.1.c Create a working group of experts to promote bio-ecological solutions for migration barriers on watercourses according to the methodology of the Ministry of Environment of the Slovak Republic;**

The output of the aquatic species monitoring was discussed at the Water Management Working Group meeting held on 28 October 2022. Slovak Water Management Enterprise agreed to evaluate the list of identified barriers with regard to the possibility of removing them or making these barriers passable. This process depends a lot on the agreement with the land owner and the feasibility/urgency of the action needed. The output of the SaveGREEN project will also be used in the implementation of the newly approved LIFE IP Living Rivers project, where the Ipoly River has been included.

❖ **3.3.1.a Identify and prepare a list of critical road sections in terms of migration; 3.3.1.b Reduce the speed limit to 70 km/h; 3.3.1.d Install "Beware of Wildlife" signs in both directions to alert drivers to increased animal presence, including modern signage**

The identified critical sections in the pilot area were presented during the meeting of the Transport Working Group, where the SSC was the main representative. A solution was proposed - an installation of traffic light deterrents for the prevention of wildlife collisions was agreed upon. Thanks to the financial support from private donors we have managed to purchase a sufficient number of these deterrents, which will be installed in Ľuboreč. The SSC also agrees to the installation of "Beware of Wildlife" road signs. This has to yet be discussed with the police (due to the possibility of speed reduction in this section). Critical sections of Class II and Class III roads will be discussed with the road manager (Self-governing Region Banská Bystrica) at the next meeting.

❖ **3.10.1.a Collect data from relevant stakeholders and 3.10.1.b Develop and use an integrated database as a decision-making tool for reducing collisions with wildlife.**

WWF has collected wildlife collision data from a number of relevant stakeholders and has prepared an internal database that will serve as a basis for further discussions on the construction of new preventive measures to safeguard the permeability of the landscape. The database is not complete yet and needs to be completed with data that we have not been able to access within the lifetime of the project. Data on wildlife mortality were obtained from the State Nature Conservancy of the Slovak Republic, the hunting statistics published by local hunting associations, as well as from the insurance company Allianz, which keeps records of damage events. The other insurance companies contacted either did not respond or replied that they do not keep such records. That again takes us back to the need to prepare the central database. The aggregated data was also used in the Christmas campaign mentioned above.

❖ **4.1.1.a Participation in the preparation of new legislation, in particular, the Nature and Landscape Protection Act; and new the Landscape Planning Act.**

During the duration of the SaveGREEN project, the Act of Nature Conservation was amended and the State Nature Conservancy of the Slovak Republic, as an associate partner of the project, prepared comments that included the protection of migration corridors and of the landscape character. Unfortunately, the comments were not included in the amendment of the law. The issue of protection of migration corridors was raised at the meeting of the Working Group on Spatial Planning. The conclusion of the discussion was that several of the comments proposed in the amendment to the Nature Conservation Act could be incorporated into the new Landscape Planning Act or the methodologies that will be part of it. There are several members of the Working Group who can work to incorporate these changes into the legislative framework.

❖ **4.1.1.c Ensure protection of identified migration corridors in the spatial planning of affected municipalities / VUCs**

During the meeting of the Working Group on Spatial Planning it was agreed to incorporate the defined migration corridors for the pilot area Novohrad - Nógrád

into the spatial plan of the Banská Bystrica region. Following this, a meeting will be prepared with the local competent authorities with a view to implementing these corridors in their spatial plans. In addition, WWF has been invited to prepare a new concept for the preservation of the landscape structure in the pilot area Detva - Íviny, where there is a significant change in land use which is causing the area to lose the character of a countryside settlement suitable for migration. WWF has provided the Poľana Biosphere Reserve with the outputs of the project, which should subsequently be incorporated into the planned concept for landscape planning.

❖ **6a.1.1.d Propose the establishment of non-hunting areas within and in close proximity to identified migration corridors and implemented migration objects within the meaning of the Hunting Act**

In May 2022, WWF joined the inter-ministerial comment procedure on the change of the Hunting Act, where, among other things, it proposed the protection of migration corridors. The wording of the comment was: *"Ensuring the passability of ecological corridors for wildlife is, in addition to the protection of the safety of humans, another important reason for declaring ecological corridors a non-hunting area. The passability of migration routes is of great importance for ensuring a favorable state of animal species populations. However, the permeability of routes can also be impaired by the exercise of hunting rights. We, therefore, propose that the Ministry of the Environment should be able to request the Ministry of Agriculture to declare hunting land to be the non-hunting zone in critical areas of migration corridors. These areas are small in size, but the importance of their passability for populations is extremely high."* The evaluation of the inter-ministerial comment procedure is still ongoing.

❖ **6b.2.1.e Organise an information campaign on the benefits of traditional shepherding**

WWF has long been working with farmers to return traditional pastoralism to mountain areas with a view to reducing HWC. As part of this work, the film "From Puppy to Herd Protector" has been produced, which focuses specifically on showcasing traditional methods of herd protection. The film was promoted on social media and film festivals in 2022. It also won the Slovak Chamber of Agriculture and Food for Slovak Film Award at the Agrofilm festival. The film was a

great success on social media. On YouTube alone, it had more than 39 000 views, which contributes to raising awareness of appropriate preventive measures.

❖ **8.1.1.a Establish working groups at local and national levels (long-term)**

In the SaveGREEN project, a working group was established, which had 15 members at the end of the project. Due to the workload of the members of the working group and the size of the individual discussed sectors, we decided to form smaller working groups for the different problem areas defined in the project. A meeting of the working group on spatial planning, transport, and water management was held. There were also meetings planned for agriculture and hunting, which unfortunately could not be organized within the duration of the project, but the defined problems were discussed with the individual experts on the subject on an ongoing basis. The outputs of the meetings were included in a cross-sectoral operational plan, which was eventually sent to all members of the whole working group for comments. Our aim is to make the working groups function in the long term, either for individual areas or on a larger scale. The need for a functioning working group was also expressed by the members themselves.

WWF was also invited to become a member of the working group for the development of the Environmental Strategy of the Banská Bystrica Region. We were involved in the preparation of the environmental strategy in the field of nature conservation and water protection and use. The last information was sent in February 2022, when it was announced that due to other circumstances, the preparation of the Envirostrategy for nature protection is postponed for the time being and the working group will be contacted as soon as it is finalized.

❖ **8.2.1.a Continue species-specific web and social media communications, including the topic of landscape permeability.**

During the discussions on information days organized by the SaveGREEN project, we understood that there is a significant lack of awareness-raising activities on the need to preserve the ecological connectivity of the country. At WWF, we have been planning for a long time to develop a separate website focused on sharing information about large carnivores. Thanks to a funding source from the private sector, the preparation of this website were made possible. The website is launched for the time being with information on lynx only. Importantly, each sub-page (for lynx, wolf, or bear) will contain a separate chapter on monitoring and migration. In

addition, during the year we continued to present the need to preserve migration corridors on social networks. During the project, 22 social media posts were published with a reach of more than 80,000 views. As part of the continuation of the Christmas campaign, the plan is to further focus the social media posts on migration corridors with reference to important information and numbers. The posts will also include the possibility of using a mobile app to collect data on road collisions, which has been lacking in Slovakia so far.