

SLOVAKIA CATCHING-UP REGIONS

THE POLONINY TRAIL PROJECT:
TAKING IT FORWARD



SLOVAKIA CATCHING-UP REGIONS

THE POLONINY TRAIL PROJECT:
TAKING IT FORWARD

© 2020 International Bank for Reconstruction
and Development / The World Bank
1818 H Street NW
Washington DC 20433
Telephone: 202-473-1000
Internet: www.worldbank.org

This work is a product of the staff of the World Bank with external contributions. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank, its Board of Executive Directors, or the governments they represent.

The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of the World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Rights and Permissions

The material in this work is subject to copyright. Because the World Bank encourages dissemination of its knowledge, this work may be reproduced, in whole or in part, for noncommercial purposes as long as full attribution to this work is given.

Any queries on rights and licenses, including subsidiary rights, should be addressed to World Bank Publications, The World Bank Group, 1818 H Street NW, Washington, DC 20433, USA;
fax: 202-522-2625;
e-mail: pubrights@worldbank.org.

CONTENTS

INTRODUCTION	9
THE 90-KILOMETER TRAIL AS A STARTING POINT	10
ESTIMATED COSTS OF CONSTRUCTION	11
TRAIL DESIGN TECHNICAL PARAMETERS	13
INFRASTRUCTURE AND SERVICES	15
General Design Guidelines	15
Campsites	17
Roofed Accommodation	18
Rest Stops and Lookout/Observation Towers along the Trail	18
Information, Orientation, and Interpretive Facilities	18
Transportation Infrastructure	19
EXAMPLES OF SUPPLEMENTARY INFRASTRUCTURE	20
PROJECT CYCLE MANAGEMENT	26
TEN GUIDING PRINCIPLES FOR CONSIDERATION	28
ANNEX 1: TERMS OF REFERENCE FOR “COMPLETION OF THE POLONINY TRAIL CYCLING INFRASTRUCTURE - PROJECT DOCUMENTATION”	33
ANNEX 2: IMPLEMENTATION TIMELINE BY STAGES	52

TABLES

TABLE 1:	Estimated Cumulative Cost for Trail Surface Rehabilitation and Construction, and other infrastructure	11
TABLE 2:	Proposed Trail Composition, by Category, and other infrastructure for the current programming period (2014-2020)	12
TABLE 3:	Proposed Trail Composition, by Category, and other infrastructure for the next programming period (2021-2027)	13
TABLE 4:	Trail Design Technical Parameters for Mountain Biking	13
TABLE 5:	Trail Design Technical Parameters for Road Biking	14
TABLE 6:	Guidelines for Environmentally and Culturally Sensitive Facilities	16

FIGURES

FIGURE 1:	Proposed ~90-Kilometer Trail by Categories	10
FIGURE 2:	Proposed ~90-Kilometer Trail by Stages	12
FIGURE 3:	Lookout Tower Design	19
FIGURE 4:	Proposed Design for the Lookout Tower	20
FIGURE 5:	Rest Area Design Sample 1	20
FIGURE 6:	Proposed Location for Rest Area 1	20
FIGURE 7:	Rest Area Design Sample 2	21
FIGURE 8:	Proposed Location for Rest Area 2	21
FIGURE 9:	Rest Area Design Sample 3	22
FIGURE 10:	Proposed Locations for Rest Area 3	22
FIGURE 11:	Intelligent Bike Stop Design	23
FIGURE 12:	Proposed Location of the Intelligent Bike Stop	23

ACKNOWLEDGEMENTS

This report was prepared by a World Bank Group team in close coordination and collaboration with a Prešov Self-Governing Region (PSK) team and a group of international and local experts.

The team extends its appreciation to the executive and administrative staff of PSK, including Silvia Slivkova, Sona Kozarova, Viera Stupakova, and Marek Sopko, for their commitment, dedication, and contributions to the preparation process.

Special thanks go to all the international experts who directly contributed their expertise to shaping this report, including Tengiz Gogotishvili (World Bank Senior Urban Development Specialist), Vladimir Benc (World Bank Consultant), and Michala Puskarova (World Bank Consultant). The team thanks Paul Kriss (World Bank Lead Urban Specialist) for his overarching guidance of the process.

The team is grateful to the mayors and council members of local governments in the Snina District, the Poloniny National Park Administration, Lesopoľnohospodársky majetok Ulič, štátny podnik (LPM Ulič, š.p.), and all other stakeholders for the support they provided during consultative meetings and their contributions to the development process.

INTRODUCTION

In recent months, the COVID-19 crisis has brought to a halt a decades-long growth trend in tourism throughout the world. As countries start reopening their borders tourism is expected to resume its contribution to the global economy.

International tourism encompasses an increasing number of new destinations and is closely linked to development. Its potential to create new jobs and to revitalize historical and natural sites and turn them into income-generating locations supports regional development and economic prosperity, and it has made tourism a key driver for socioeconomic progress in these places.

According to a variety of industry experts who have analyzed the country's tourism offerings, market base, and marketing programs¹, the Snina District, with its Bukovské vrchy mountain range, and the Poloniny National Park possess a rich mixture of unique, world-class natural and cultural assets that are ready to be appreciated.

The primary challenge is twofold. First, tourists in Snina, both domestic and international, are presently limited in number, and the spending they do is correspondingly small; and, second, high-spending domestic and international tourists are especially sparse. Four factors account for these challenges:

1. Connectivity and basic tourism infrastructure are insufficiently developed.
2. Opportunities to spend money are insufficient and hard to find.
3. Experiences and services in the area are noncompetitive in quality.
4. Marketing and promotion activities are weak, market segmentation is inadequate, and the international visibility of Poloniny and the unique travel experiences it can offer is limited.

This report, *The Poloniny Trail Project: Taking It Forward*, is Output 4 of the World Bank's tourism-related support to the European Commission (EC), the Deputy Prime Minister's Office (DPMO) for Investments and Informatization, and the Prešov Self-Governing Region (PSK) of Slovakia. It offers a phased approach to planning and developing a trail network in the Poloniny National Park, incorporating (and improving as necessary) sections of trail that already exist. The new trail network has a potential be connected to the Polish and Ukrainian sides of the National Park and its attractions, as well, as described in Output 3. The report discusses in detail the development plan and prioritization of investments, provides guidelines for proper planning to minimize negative impacts on the environment, presents important points to consider, and suggests ways in which other activities relating to product and service development can aid the effort to address the issues identified above and turn this unique place into a driver for local economic growth.

This report was made possible by a collaboration between World Bank Experts and the PSK team in support of the EC's and DPMO's Catching Up Regions Initiative (CURI). It is based on fieldwork and provides evidence-based recommendations that will inform PSK's and the Slovak national authorities' future planning and investments in regional tourism development, particularly in the Snina District.

¹ Slovakia Catching-Up Regions: Unlocking the Endogenous Tourism Potential of Poloniny National Park and the Snina District of the Slovak Republic. The World Bank. 2019

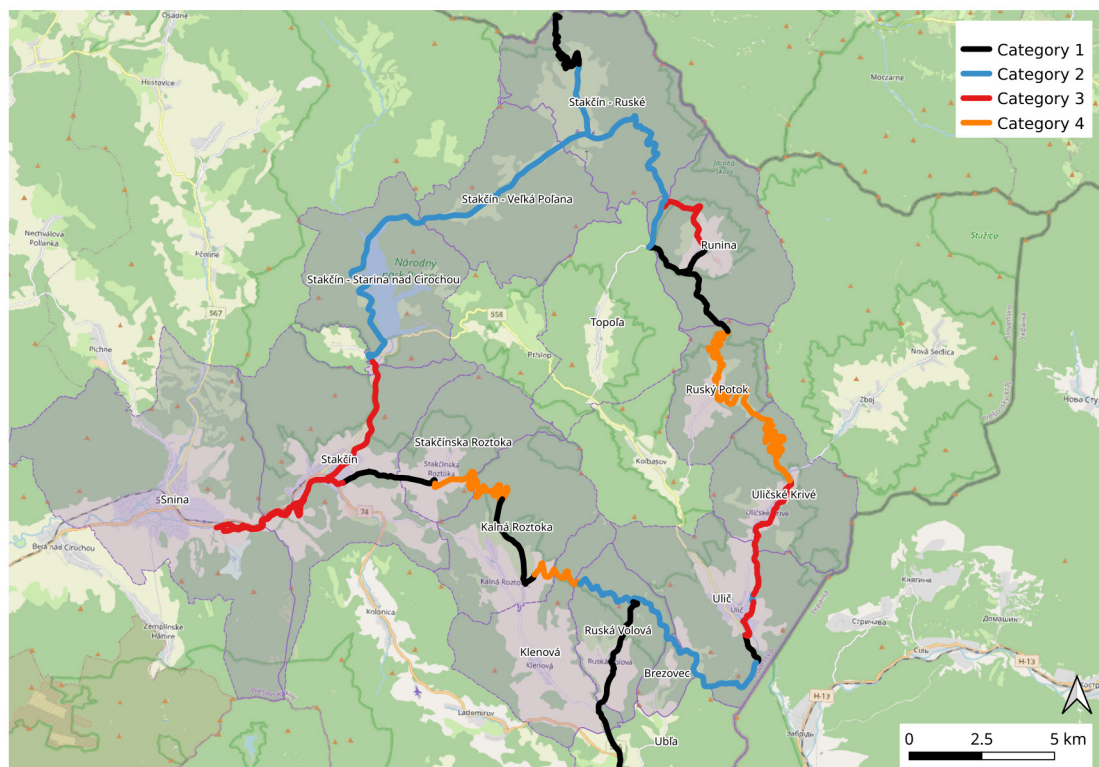
THE 90-KILOMETER TRAIL AS A STARTING POINT

According to the third output of this consultative assignment—the *Due Diligence Report on the Establishment of a Poloniny National Park Trail*—Poloniny National Park has the potential to expand its trail network to almost 400 kilometers. This network can be used for a variety of adventure tourism activities, including hiking, camping, cycling, horseback riding, bird and wild-life watching, and so on.

The scarcity of financial resources for public investments, however, calls for a phased approach to develop the network. Consequently, the team assessed the entire trail system and identified a 90-kilometer loop best suited for the first phase.

Through thorough study and inspection using a number of online analytical tools and site visits for validation, the team has determined that the 90-kilometer loop covers main viewpoints and scenery around the Starina Reservoir and connects a great many villages located in the national

FIGURE 1 Proposed ~90-Kilometer Trail by Categories



Source: PSK, OpenStreetMap, 2020

park and the district capital City of Snina. It is a great fit for product development, providing lots of opportunities for the local communities in the Snina District to generate income through sustainable tourism development practices.

The proposed loop consists of sections that are partially based on existing trails. Some are in fairly good condition, while some require more in-depth interventions, and others need to be constructed from scratch to complete the loop. The sections fall into four categories, based on their condition, need for intervention, and intended use:

Category 1—Existing trail sections in need of minor interventions (~13.23 km). The sections in this category are in full compliance with the minimum required standards of the relevant construction codes and regulations. They will need only minor improvement in small infrastructure and signage.

Category 2—Existing trail sections in need of major interventions (~35.42km). The second category represents the sections of the trail that also already exist but are not fully in compliance with the required standards (surface, width, slope gradient, etc.). These will require major improvements to the trail surface to make them usable for adventure tourism purposes (cycling, hiking, and so on). In addition, small pieces of infrastructure (rest stops, for example) and proper signage must be organized.

Category 3—New trail sections with hard surfaces (road type; ~19.5km). This category covers the sections of the trail which can be used for improved mobility between the villages while serving the main purpose of adventure tourism development. They will need to be built from scratch and accompanied by smaller infrastructure, such as bike racks for parking at the beginning, proper directional signs, rest stops and parking areas, public toilets, and information desks or booths.

Category 4—New trail sections with soil surfaces (recreational; ~23.91km). The sections in category 4, which also do not yet exist, are designed for recreational purposes and for pure tourism development. They will need to be constructed from the beginning and furnished in places with infrastructure for improved visitor services and signage, as appropriate.

ESTIMATED COSTS OF CONSTRUCTION

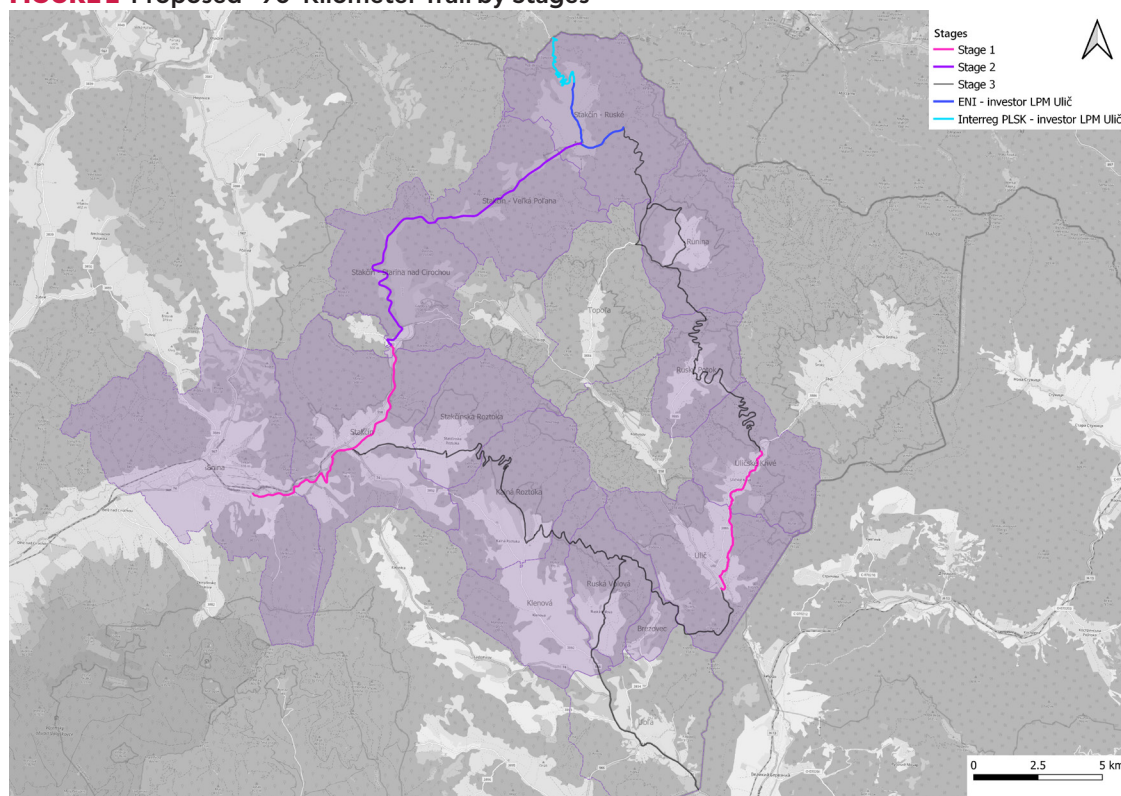
The total estimated length of the proposed loop is 92.06 kilometers with the estimated cumulative construction cost of over 17 million €.

TABLE 1 Estimated Cumulative Cost for Trail Surface Rehabilitation and Construction, and other infrastructure

	Length (km)	Price per kilometer (€)	Total cost per category (€)
Category 1	13.23	500.00 €	6,615.00 €
Category 2	35.42	160,000.00 €	5,667,200.00 €
Category 3	19.5	200,000.00 €	3,900,000.00 €
Category 4	23.91	120,000.00 €	2,869,200.00 €
Total	92.06		12,443,015.00 €
Other infrastructure and services			4,795,923.00 €
Grand total			17,238,938.00 €

Source: PSK. These estimates derive from the technical study for cycling path construction provided by Kosice Self Governing region, December 2019. Road rehabilitation is estimated from the similar projects implemented by PSK' Regional Road Maintenance Office in 2019.

FIGURE 2 Proposed ~90-Kilometer Trail by Stages



Source: PSK, OpenStreetMap, 2020

Considering the complexity of the design works and required time for each step, the rehabilitation and construction of the loop is proposed in three stages, of which Stage one can be implemented within the current ESIF programming periods, while stages 2 and 3 are proposed for implementation from the next programming period. Tables 2 and 3 break down the total distance into the four categories described above and the programming period.

TABLE 2 Proposed Trail Composition, by Category, and other infrastructure for the current programming period (2014-2020)

Programming Period: 2014-2020	Length (km)	Category	Price per km	Total
(1) Construction of 2 sections: Snina-Stakčín, Ulič-Uličské Krivé, and (2) Modernization of "Starina- Ruské"	15.77	2	160,000 €	2,523,200 €
	16.42	3	200,000 €	3,284,000 €
Total	32.19			5,807,200 €
Revitalization and maintenance of existing recreational routes				300,000 €
Small infrastructure (lookout towers, rest stops, benches)				500,000 €
Project documentation - estimated cost				300,000 €
Total				6,907,200 €

Source: PSK

TABLE 3 Proposed Trail Composition, by Category, and other infrastructure for the next programming period (2021-2027)

Programming Period: 2021-2027	Length (km)	Category	Price per km	Total
Building of new trail sections and reconstruction of the existing ones for the remaining loop not covered in table 2	13.23	1	500.00 €	6,615 €
	19.65	2	160,000.00 €	3,144,000 €
	3.08	3	200,000.00 €	616,000 €
	23.91	4	120,000.00 €	2,869,200 €
Total	46.64			6,629,200 €
Estimated cost for necessary additional infrastructure such as bridges, drainage channels, retaining walls - (30% costs of the trail category 3 and 4)				1,045,560 €
Estimated cost for ground works (20% of the trail category 3 and 4)				1,449,040 €
Additional tourist infrastructure on the Poloniny trail				1,500,000 €
Total				10,623,800 €

Source: PSK

To commence with design works, in 2020, PSK already allocated 400,000 €. The design works for all sections listed in tables above are currently underway.

TRAIL DESIGN TECHNICAL PARAMETERS

The technical parameters presented in tables 4 and 5 demonstrate compliance with the requirements of the Slovak Republic for cycling trails. The designer must ensure they are fully met with respect to the different sections of the trail—whether for mountain cyclists needing a soil cover or for the increased connectivity and mobility provided by a hard cover (road type). Depending on the purpose of the trail, its topographical conditions, and the terrain, the design parameters may vary and be further adjusted. Those exceptions are also included in the tables.

TABLE 4 Trail Design Technical Parameters for Mountain Biking

Criteria for designing and assessing the route for cyclists		Category of cycling paths		
		Grade 1 Recreational	Grade 2 Sport	Grade 3 Expert
Planned route width in cm	One-way path	90-150	60-120	45-80
	Two-way path	180-240	150-220	Only in case of setting up detours
Surface treatment	Type	Constant, hard road surface	Imported material and overall stabilized route. Soft road sections are very rare or spilled with fine gravel of 0-22 mm.	Original material, occasionally weighed with other soils or gravel. There may be soft or gravel sections of fraction 16-32 mm.
	Barriers	-	Smooth road with minimal barriers, max. 10 cm high	Smooth road with barriers that do not exceed 20 cm
Longitudinal slope*	Planned range of more than 90% of the route	<5%	<8%	<10%
	Short max. climbing up to a length of 60 m	8%	10%	15%
	Maximum climb total **	<3% of trail	<3% of trail	<5% of trail

Transverse slope	Planned range in direct	2–3%	2–5%	2–5%
Transit clearance	Width (cm)	45–60 cleared from the edges of the route	30–45 cleared from the edges of the route	30–45 cleared from the edges of the route
	Min. high (cm)	270	250	200
Turns	Min. radius of directional curve	14	5	0

* Slope variations depend on soil type, hydrological conditions, degree of exploitation, and other factors contributing to surface stability and potential erosion. Given these impacts, careful consideration should be given to how larger slope ratios can damage the route and cause further erosion.

** Maximum slopes on the route shows how many sections of the entire length of the route are within 5% (+/-) of the maximum slope on the route.

TABLE 5 Trail Design Technical Parameters for Road Biking

Criteria for designing and assessing the route for cyclists		Category of cycling paths		
		Grade 1 Recreational	Grade 2 Sport	Grade 3 Expert
Maximum longitudinal slope	%	6	8	11
Transverse slope	%	2	3.5	5
Minimum road width	m	3	2.5 (2.00)**	2
Surface treatment	-	Hardened*	Hardened*	Hardened*
Min. radius of directional curves	m	30	14	5
Maximum longitudinal unevenness	cm	0,3***	0,5***	0,5***

* According to 2.3.3 Guiding cycle paths in protected areas and sections designated in the skeleton network—maintained surface of gravel or fine gravel 0–22 also suitable for gravel bicycles.

** In justified cases, within the meaning of TP 085. See: https://www.ssc.sk/files/documents/technicke-predpisy/tp/tp_085.pdf

*** For paved cycling roads, measured below 1.00 m in accordance with TP 085.

INFRASTRUCTURE AND SERVICES

While some protected areas throughout the world are rarely visited, others already accommodate large numbers of tourists, far exceeding the size of local populations. From this perspective, the Poloniny National Park is at a starting point, with only a limited number of visitors coming each year. As the park begins to gain popularity, these numbers will increase. This must be given due consideration during the planning process.

All protected areas, including the Poloniny National Park, require some level of tourism infrastructure to support the provision of minimum required services to visitors. Essential services include the provision of lodging, water and sanitation, food, information, transportation, and safety. Designs for infrastructure must be considered with care to ensure the least possible impact on the environment, visual integrity, and harmonization with nature. No matter how big or small the structures are, they need to reflect the values of the area and be in clear accord with the needs of the locality.

In addition to meeting their essential needs, services available to visitors can stimulate park uses. Park infrastructure and visitor services should foster the understanding of key park themes and values. Good design will make tourists more comfortable in and responsive to the places they are visiting. Those who feel they are well looked after will value the park more and be inclined to assist in its protection and promotion, which, in turn, will bring more visitors.

Competition among various destinations has grown. Therefore, careful investigation of visitor needs through planning and research and the use of monitoring tools, such as satisfaction surveys, remains a priority. Indeed, a mark of a well-managed protected area is planning of the infrastructure and services for visitors that is based on an understanding of the needs of existing and potential users.

In short, good design is important because well-designed enterprises are the most successful. They function better and attract more visitors. Moreover, good design does not need to be expensive. Success often depends on simple solutions and easy maintenance that raise the value of the park and the visitor experience. The Tourism Council of Australia and the U.S. National Park Service have both published excellent guides to environmental design in parks and tourism.

GENERAL DESIGN GUIDELINES

The table provides an overview of general guidelines for designing facilities that take into account the environmental and cultural sensitivities of protected areas. It is followed by a brief elaboration on the guidelines for tourist amenities for such areas, including campsites, roofed accommodations, rest stops and lookout towers, information, orientation, and interpretive facilities; and transportation and other supplementary infrastructure.

TABLE 6 Guidelines for Environmentally and Culturally Sensitive Facilities

Area of concern	Guidelines
Environmental impact assessments	<ul style="list-style-type: none"> • Consider whether or not a statutory or informal environmental assessment is required, including ecological, social, cultural, and economic evaluation. • Develop a mitigation plan where required.
Landscaping and site design	<ul style="list-style-type: none"> • Develop a context plan, examining the entire surrounding area and community, including valued views and resources. • Develop a management plan for the site, including the relationship with the surrounding or adjacent protected areas and addressing zoning and access. • Develop a site plan, focusing on detailed design that minimizes site disturbance, physical intrusion, and intervention. • Implement tree management that considers tree retention, relocation, or replacement. • Plant vegetation to supply a more natural environment that provides habitat for birds, mammals, and other wildlife. • Use indigenous species for landscaping, considering cultural aspects of the site. • Ensure linkages are considered (for land use, human circulation, nearby trails, other facilities, outpost camps, etc.).
Built facilities	<ul style="list-style-type: none"> • Ensure height and mass are in scale with existing vegetation and topography. • Recognize the history of the place, cultural characteristics, and indigenous or vernacular design features and colors. • Construct facilities for energy efficiency, using renewable energy wherever possible.
Resource conservation and consumption	<ul style="list-style-type: none"> • Design and operate services that minimize the use and production of water, energy, waste, sewage, effluent, noise, light, or any other resources or emissions. • Encourage the use of renewable sources of energy. • Consider a permaculture approach (which mimics the interconnectedness and diversity of flora and fauna in natural systems) to turn waste into resources and problems into opportunities.
Materials	<ul style="list-style-type: none"> • Use materials that are indigenous, appropriate to the area, and involve low maintenance, “sourcing” those used in construction to ensure they come from sustainable production systems or will be recycled where appropriate. • Ensure all materials brought onto the site for construction are used, imposing a “no waste” condition on contractors.
New and low-impact technologies	<ul style="list-style-type: none"> • Where appropriate, use new technologies in construction, maintenance, and operation that are practical and cost effective and have no perverse effects elsewhere (e.g., “smart” room controls and sensors). • Use new technologies that are more effective than older ones in standalone equipment and vehicles, as well as in facilities.
Services	<ul style="list-style-type: none"> • Develop and implement service standards to meet the needs of all stakeholders—visitors, agencies, private sector, staff.

Area of concern	Guidelines
Quality control	<ul style="list-style-type: none"> • Develop clear guidelines and conditions of operation for the agency in charge of the protected area so reporting and decisions are simple and clear. • Maintain baseline information (ideally from preconstruction) to enable assessment of impacts that may occur as a result of construction and operations. • Set conditions of operation and timelines such that the developer/concessionaire can afford to invest in high quality and visitor satisfaction, as well as obtain a reasonable return on the investment. • Initiate regular meetings with managers and facility operators to help resolve problems or issues.
Green practices	<ul style="list-style-type: none"> • Develop green purchase policies. • Use biodegradable cleaning products. • Use alternatives to watering, such as mulching, alternate mowing, and composting. • Develop an integrated pest management plan. • Use bulk or reusable storage containers. • Keep all systems and equipment well maintained, since all systems degrade in efficiency over time. • Encourage vehicle pooling for staff transportation to the site. • Ensure marketing materials are environmentally sensitive, and use electronic communications.
Programming	<ul style="list-style-type: none"> • Involve visitors in developing ongoing improvements. • Manage use of the site by people, aided by a human use strategy (see above). • Consider partnerships with others (e.g., other public agencies) to assist with programming. • Develop high staff-to-client ratios. • Reward relevant staff for creativity and monitoring. • Build monitoring into program activities.
Relationship with the local community	<ul style="list-style-type: none"> • Consult with the local community before development or significant changes in activities, and donate surplus or leftover goods (e.g., soaps, bed linens, amenities, foods) to local charities or causes. • Maximize employment opportunities with the local community. • Buy goods and services locally, and encourage the use of “green” products and services where none are locally available. • Assist local organizations, provide discounted services, or donate a percentage of fees or profits to a worthy local cause. • Encourage visitors to spend more time in the area, and offer work experience or training options locally.

Source: Adapted from Sustainable Tourism in Protected Areas: Guidelines for Planning and Management Handbook by Paul F. J. Eagles, Stephen F. McCool, Christopher D. Haynes, United Nations Environment Programme, World Tourism Organization, IUCN World Commission on Protected Areas

Campsites

The offering of comfortable sheltering at campsites by the National Park Administration and in roofed accommodation by the private sector will be crucial to building the strong constituency enjoyed by the park movement. Many countries provide camping facilities within protected areas, ranging from basic campsites to large, constructed campsites with extensive infrastructure. A unified approach and guidelines specifically for Poloniny National Park would provide for adequate campsite development there. Such guidelines would describe the role of camping in the national park and set out a service strategy, design standards, and minimum requirements for

the construction, maintenance, and operation of campsites. This would represent good practice, demonstrating that such campsites can be owned and managed by the public or private sector, or a combination of the two.

One commonsense approach to developing facilities associated with camping in wilderness and backcountry situations is that they all should be as simple as possible, appropriate to the level of use, and appropriate to the degree of allowable impact. Well-designed facilities for campsites can minimize the human footprint on remote sensitive environments; for example, simple public toilets are much preferable to widespread distribution of human waste. To stimulate family tourism, “front country” campsites often include showers, laundry facilities, children’s play facilities, and interpretation facilities (info desks, maps, etc.)..

Waste disposal is an important issue for all campsites. Solid garbage waste requires landfill disposal, either inside or outside the protected area, so plans to reduce the generation of waste are highly desirable. Public toilets can significantly reduce sewage disposal problems. Many protected areas, especially near cities and towns, can take advantage of collection and recycling programs for metal, paper, and glass. Others can identify their own solutions. Where solutions are not possible, restrictions for the visitors can be introduced—for example, a ban on cans and bottles for all hiking areas. In close cooperation with the private sector, a full range of food and supplies can be produced in packages that are light, easy to burn, or readily carried back out of the park.

Roofed Accommodation

Many visitors require overnight accommodation. In the case of Poloniny, they can enjoy the services of nearby villages within the boundaries. To meet their basic needs, the Poloniny National Park administration, along with the respective municipalities, must work closely with the concerned communities to ensure proper homestays. As suggested by Output 3¹, Alberto Diffuso model from Italy can be further considered and adapted for this purpose. It is also vital that these accommodation locations be well connected with the trail, with proper markings and information made available through a dedicated tourist information center, information desk, or online tools.

Rest Stops and Lookout/Observation Towers along the Trail

Often, basic infrastructure is required along the trail so visitors can take a short break before they continue on their way. This can apply to all types of tourists, including hikers, cyclists, or families who simply come to enjoy a day or two in the national park. When designing such spots, it is essential to contemplate the distance between them and consider the distance an average tourist can walk in one go. Such places can be also used as picnic areas; however, any resulting pollution and waste may create environmental problems. Furthermore, the rest stops shall consider some basic services, such as bike stands, public toilets and source of water.

Lookout or observation towers can serve as observation decks, allowing tourists to enjoy the scenery and landscapes, and engage in bird watching activities. These are popular spots, where tourists take pictures that in turns helps to further promote the destination through various social media tools. When designing a tower, it’s important to properly consider the best possible location to ensure high level satisfaction of the visitors.

Information, Orientation, and Interpretive Facilities

Signage and other forms of information and interpretation can be used to influence visitors’ behavior and enhance their experience. A policy to ensure a standardized approach to providing signage throughout the park is good practice. Conversely, such a policy can help prevent the

¹ Due Diligence Report on the Establishment of a Poloniny National Park Trail. World Bank Publication, 2019.

overuse of signage. Oftentimes, many tourists are disconcerted to see different types of signs, following different design standards. Slovakia has its design standards for directional signs and they should be closely followed to ensure consistency.

Visitor centers provide a broad range of information, interpretation, safety, and recreation services and represent major investments in protected areas. As the presence of such centers is vital for visitors, they must be located conveniently, normally near the park entrance(s), where they will attract the most people and, in the case of Poloniny, in close proximity to the villages, where tourists are likely to arrive and stay over. When designing and constructing a visitor center, the basic guidelines of construction and operation described above must be fully respected.

In addition to the services they offer to the public, visitor centers fulfill important management tasks, especially in national parks, and two or more can be provided as needed. They can also play an important role in collecting feedback from visitors—information that will prove useful for monitoring services and visitor satisfaction and making improvements.

Currently, a few visitor centers are already available in seven villages (Nova Sedlica, Zboj, Ulič, Ruský Potok, Runina, Kolbasov, Príslop). Therefore, there may be no additional need to construct the new one, but rather put them in proper operation. For this purpose, it's important that the National Park administration in close cooperation with the village mayors define the scope of the services these centers can offer and develop an action plan how to put them in operation.

The best of today's visitor centers are multifunctional and carefully designed, sited, and landscaped. For commercial purposes, they may contain a souvenir store and a café or small restaurant, which provide useful services and become important sources of income for the park administration or the municipality or community to which the park belongs.

In short, a well-designed visitor center should draw people into the building, persuade them to look at the displays, and lead them out, better informed, into the real world. A strong interpretive component to help them understand the significance of the area is important in this regard.

Transportation Infrastructure

Transportation infrastructure within protected areas provides people with access to opportunities for understanding, appreciation, and enjoyment. In many parks, transportation will be important as a service to local people as well as to visitors. This usually means motorized transportation, however, which can have major negative impacts, generating noise, pollution, and dust that can disrupt wildlife, damage vegetation, and affect water quality.

In many protected areas, including Poloniny, the road system is essentially a part of the public road network, with the roads owned and managed by PŠK, the local transportation or municipal authorities. The availability of roads can provide a great opportunity to explore green transportation options, connect all villages in the area, and promote the use of bicycles and other non-motorized means of transportation. To make progress toward this objective, PŠK is preparing a design package to connect four villages with a bicycle track and will continue expanding the network. In addition, special programs must be designed to promote green transportation use in such locations, as the track or trail alone may not bring the desired results. Such programs must be designed in close cooperation with the local communities and key stakeholders to ensure the greatest return and effectiveness.

FIGURE 3 Lookout Tower Design



Source: Project team

FIGURE 4 Proposed Design for the Lookout Tower



Source: Project team

FIGURE 5 Rest Area Design Sample 1



Source: Project team

FIGURE 6 Proposed Location for Rest Area 1



Source: Project team

Examples of Supplementary Infrastructure

The following recommendations will be helpful in preparing detailed design packages for supplementary infrastructure along the proposed trail:

1. If the situation permits, repair and make use of the existing infrastructure in the area. As this study has suggested, tourist signage and resting places are quite common in protected areas and their vicinities, mainly near paved roads and in villages. For this purposes, the entire area has been already mapped. First mapping exercise was completed by the World Bank experts in 2019, followed by another round of validation activities by the PSK team. As a result, the inventory of the existing cycle trails and additional tourist facilities has been brought to finish.

2. Before placing a point of interest (POI) along the trail, study the local land-use plan (if one exists) and the ownership status of the plot and act in accordance with the findings.

3. Design infrastructure that fits within areas of 25 square meters. According to the Slovak regulations, such small structures do not require construction permits and can be put up following a simple building announcement, with the approval of the environmental agency. This can save a lot of time for implementation. For larger structures, building permits must be obtained; these structures are banned in the areas of the Starina Reservoir and the Cirocha Valley.

4. Consider access a key design requirement, not only for visitors, but for maintenance and operations and waste collection.

5. Take into account the prohibition on visitor access to the Starina Reservoir area, which is protected at the highest level.

6. When designing infrastructure, make use of local materials (and also materials used for the existing structures in the area) for harmonious appearance.

7. Consider taking a standardized approach to providing exterior furnishing (benches, waste bins, and so on). This will also support visual coherence and make for simpler management.

8. Construction must be environmentally friendly to reduce its environmental impact and simple to facilitate maintenance.

FIGURE 7 Rest Area Design Sample 2



Source: Project team

FIGURE 8 Proposed Location for Rest Area 2



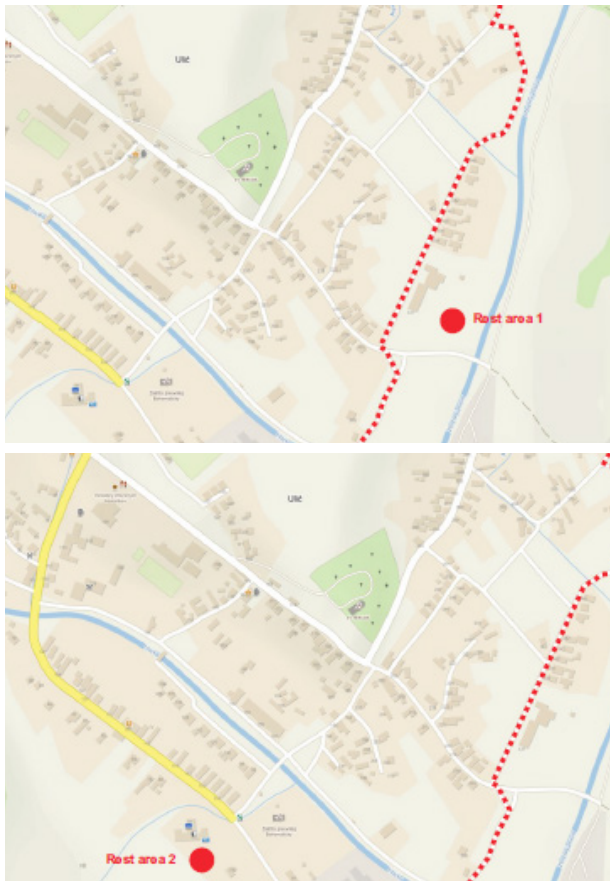
Source: Project team

FIGURE 9 Rest Area Design Sample 3



Source: Project team

FIGURE 10 Proposed Locations for Rest Area 3



Source: Project team

9. Make use of environmentally friendly measures, including water conservation, waste recycling, and so on.

Below are examples of supplementary infrastructure that will both provide enjoyment and support visitor services along the trail, while minimizing negative impacts on the environment. A detailed design package for each proposed project described is available at the rsk office.

Lookout Tower by Starina Reservoir

Figure 2 is a rendering of a lookout tower that can be situated next to the Poloniny Trail near the banks of the Starina Reservoir.

The proposed location, shown in figure 3, is a crossroads of the main roads encircling the Starina Reservoir, where directional signs and information panels for tourists are already in place.

The platform of the tower is designed to stand 3.6 meters above the level of the terrain, providing a view of the reservoir and the adjacent foothills of the area.

The proposed construction for the tower is a metal frame covered by wooden paneling. Access to the platform is by stairs, and the whole structure is under a wooden roof with metal sheathing. Access from the road to the tower is provided by a stone sidewalk with a bench next to it.

Rest Area—Sample 1

The first proposed rest area, depicted in figure 4, is to be located near the access to a military cemetery from World War I, which is in the center of the former village of Velká Poľana (see figure 5). Currently, the area contains a table with the benches, together with a wooden well.

The proposed rest area comprises a seating space with a table, situated under a shelter consisting of a shingled wooden roof structure atop four stone pillars. The choice of materials reflects the architecture of the chapel at the top of military cemetery. Additional seating for visitors is provided on low stone walls with wooden tops, with a trashcan close by.

FIGURE 11 Intelligent Bike Stop Design



Source: Project team

FIGURE 12 Proposed Location of the Intelligent Bike Stop



Source: Project team

Rest Area—Sample 2

The second proposed rest area, shown in figure 6, is to be located near a major crossroads of the tourist and bike routes (one of which goes toward the Poland border) at the site of the former village of Ruské (see figure 7). Currently, the rest area consists of a shelter with internal seating and a wooden well close to the road.

The proposed new shelter is a wooden structure. A roof covered by metal sheathing surmounts an enclosed platform, accessible by ladder, that can serve as an overnight spot. At ground level, a seating area contains a table with benches and a stone fireplace.

Rest Area—Sample 3

The third proposed rest area is depicted in figure 8. Shelters of this design can occupy two locations in the village that both serve as rest areas today (see figure 9). The first is near the Zbojsky potok stream, in the eastern part of the village near the Poloniny trail track. The second is in the southern part of the village, near the municipal building.

The proposed new shelter is a wooden structure. A roof covered by metal sheathing surmounts an enclosed platform, accessible by ladder, that can serve as an overnight spot. At ground level, a seating area contains a table with benches and a stone fireplace.

Rest area 3 is a simplified version of the shelter proposed for the Ruské site (sample 2, above). As figure 8 shows, the lodging level has been eliminated. The structure, to be made of wood and topped by a roof with metal sheathing, encloses a seating area containing a table and four park benches (without backrests). A stone fireplace is situated in the corner, and a bin for firewood and an information panel are provided.

Intelligent Bike Stop

As solo travelers increase in number at destinations throughout the world, “intelligent bike stops” are gaining in popularity. Figure 10 shows one such structure, which is proposed for the center of the village of Ulič, located at the edge of a historic park containing the Ulič Castle ruins (see figure 11) and can be replicated in other locations and villages as necessary. At facilities like this one, visitors can find the tools they may need to fix their bikes and can enjoy basic services, such as public toilets, bike parking racks, and information desks, the provision of which may vary, depending on location. Often, a small charge is levied for the use of such stops for the purpose of funding their proper operation and management. The bike stop proposed here consists in part of a shelter with roofed seating and a self-repair bike stand. An information panel is affixed to the wall near the repair stand, and rack is provided for locking up bikes. The other part of the building houses public toilets for the visitors. The shelter offers a view into the park and an opportunity to rest in the center of the village nearby, where a shop and a restaurant and bar are available.

The building design combines brick and wooden construction, with metal mesh paneling inserted below the roof level for ventilation. The choice of materials differs slightly from that of the other structures to be located along the Poloniny trail, mainly because of its central location in a more urbanized area and reflecting the materials used for other buildings in the proximity. The building is to be connected to utilities (electricity, water, sanitation) available nearby.

PROJECT CYCLE MANAGEMENT

Step 1: Project Documentation

A call is a comprehensive document that describes in detail the scope of the services to be procured. The invitation specifies the subject of the contract, the method of evaluation of the submitted proposals, the deadline for submission, the timeline for service execution, the minimum requirements for bidders, etc. Usually, the preparation of a call can be a lengthy process, because the client (in this case PSK as the “contracting authority”) must first define the scope of the work/ services they want to procure. In the case of the Poloniny Trail, certain preconditions must be met before reaching this stage. These include on-site visits, consultations with stakeholders on the scope of the assignment and, inter alia, the resolution of legal issues, such as the state of ownership of property and land relations. The terms of reference, prepared by PSK under this step, are set out in Annex 1 of this report.

Step 2: Call for Quotations

Once the invitation is posted, a request for price quotations is sent to at least three eligible entities to determine the estimated value of the contract. The average price is calculated from the quotes received. For this project, the client will send the call prepared in step 1 to at least 5 eligible entities to submit their price estimates. Based on the submitted responses, the client will determine the estimated value of the contract and will continue with the next step.

Step 3: Provision of Project Related (Design) Services

To procure the design services (often referred to as project documentation) for this project, PSK will carry out a public procurement procedure to select the contractor. Such procurement is carried out through a public tender known as public procurement. Eligible entities will be entitled to submit their proposals. PSK, as the contracting authority, will open and then evaluate the proposals after the deadline, and on the basis of the selection criteria will choose the best suited contractor. Evaluation of the proposals may require from one week to several months, depending on the number and quality of the submissions. External technical expertise may be also needed to complete the evaluation.

Step 4: Environmental Protection

Granting of environmental permits can be lengthy depending on the complexity of the task. For example, if an environmental impact assessment is prepared and approved, this process can take 6 months or at time even more.

Step 5: Construction Permit

After elaborating the project documentation and closing all open questions related to environment, the process will continue with the provision of building permit. The length of this step depends in part on how quickly the competent authorities examine the package and whether they issue comments or not. At this stage, it is also necessary to settle land property rights. Due to the area through which the proposed Poloniny Trail passes, a large number of plots owned by the private sector and state-owned companies have to be resolved, so the process can be lengthy.

Step 6: Funding for Construction

Obtaining funding for construction can be more challenging than any other step in this cycle. As already mentioned, funding for public investment is insufficient and government often has to set priorities. In the case of the Poloniny Trail, the stakeholders have provided assurances that funding will become when the package is ready. It is therefore important that steps 1 to 5 are completed as soon as possible and within the CUR12 timeframe in order to secure financial support.

Step 7: Construction Works

Once financing becomes available, another public tender will follow, this time for the construction work needed to build the trail and supplementary infrastructure. As in step 3, a call for submissions must be open for 30 days to allow eligible entities to apply. The preparation of tender documentation may take from one week to a month, while the evaluation may take another month after the end of the selection procedure. This will be determined by the number of interested candidates and the quality of the applications.

The detailed Gantt Chart for this project, divided into three stages, is included in **ANNEX 2** of this report.

TEN GUIDING PRINCIPLES FOR CONSIDERATION

With scarce public resources to finance investments, competition for targeted markets fierce, and Slovakia's tourism industry—and, especially, that of Poloniny—relatively young compared to the rest of Europe, the actions, activities, and products designed during the implementation phase of this project need to be smart and targeted. Application of the following principles to guide the design of specific products or the implementation of follow-up actions will help lead to success:

No. 1: Consider the most current trends in demand and supply, and focus on developing product offers that increase length of stay and spending per tourist.

Before the COVID-19 pandemic, the travel industry was growing fast, including the European adventure tourism sector, influenced by numerous trends that were shaping societies at large. These trends should be considered in the project development process, as tourism will start growing again once the pandemic is defeated. The impacts these trends may have on tourism in the Poloniny area need to be identified.

Understanding trends is crucial for investments, as it drives the improvement of data collection and analysis, the targeting of infrastructure investments, the defining of new products, the targeting of markets, and the alignment of marketing strategies. Increasing the length of time tourists stay and how much money they spend is not only directly connected to increasing tourism revenues for the region; it also allows for essential decision-making around prioritization of investments and increases focus on deepening and diversifying the tourism experience. For this purpose, alignment and coordination are required among regions of the country, between the public and private sectors, in marketing and product development, and across different central and regional agencies.

No. 2: Plan with “overtourism” in mind

While the problem of overtourism may seem to apply only to destinations that are at an advanced stage of their growth life cycles, this is not necessarily so. Smart destination growth means designing and executing a process that stimulates growth on the basis of smart planning and careful analysis of tradeoffs by following three principles: (1) instilling impact-based rather than volume-based approaches; (2) taking a focused segmentation and targeting approach to marketing; and (3) considering carrying capacity, visitor flow management, and limits of acceptable change.

No. 3: Include sustainability as a crossing-cutting theme

Sustainability is an important element that shall be considered at every stage of tourism development. Sustainable tourism should make optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity.

The United Nations World Tourism Organization (UNWTO) offers the following guidance on sustainability in tourism development, which is worth quoting in full:

Sustainable tourism development guidelines and management practices are applicable to all forms of tourism in all types of destinations, including mass tourism and the various niche tourism segments. Sustainability principles refer to the environmental, economic, and socio-cultural aspects of tourism development, and a suitable balance must be established between these three dimensions to guarantee its long-term sustainability.

Thus, sustainable tourism should:

1. Make optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity.
2. Respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance.
3. Ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation.

Sustainable tourism development requires the informed participation of all relevant stakeholders, as well as strong political leadership to ensure wide participation and consensus building. Achieving sustainable tourism is a continuous process and it requires constant monitoring of impacts, introducing the necessary preventive and/or corrective measures whenever necessary.

Sustainable tourism should also maintain a high level of tourist satisfaction and ensure a meaningful experience to the tourists, raising their awareness about sustainability issues and promoting sustainable tourism practices amongst them.²

No. 4: Nurture linkages with agriculture, food, and other sectors of the economy

To ensure further economic benefits, the project implementation process should facilitate and enhance linkages with specific sectors, such as agriculture and the food industry. This can be achieved by optimizing the supply of agricultural and processed food products from local sources; designing distinctive traveler experiences that weave in local farming and culinary traditions; and developing farm- or food-related souvenir products.

Effective planning for tourism development requires a “whole-of-government” approach that aligns with and coordinates education, infrastructure, urban and rural development, transportation, and other sectors to add value to the tourism sector. Also important is to deepen the economic impact of tourism through linkages with other productive economic sectors, such as agriculture and food production, that are sources not only of supply to tourism service providers, but of variety. Activities like shopping at farmers’ markets, farm visits, farm-to-table programs, and demonstrations of culinary traditions are grounded in the local economy and based on entrepreneurship associated with improving and diversifying the skills of local operators and farmers. Snina District and Eastern Slovakia at large have particularly strong traditions around food that can be highlighted to strengthen their regional brand, as well provide as an entry point for promotion and marketing through the travel and food media.

² United Nations World Tourism Organization, Making Tourism More Sustainable: A Guide for Policy Makers (UNWTO Publications, 2005), 11–12, <https://www.e-unwto.org/doi/pdf/10.18111/9789284408214>.

No. 5: Set the stage for tourism entrepreneurship and innovation

Slovakia's existing entrepreneurial ecosystem can be a source of innovative solutions for the travel industry. Innovation-oriented development can build on this by encouraging the design of innovative and smart solutions to some recognized challenges of the Presov Region's tourism industry; attracting young people to the travel industry; accelerating new job creation; and gaining competitive advantage on the basis of innovative and smart solutions in the industry.

Snina is still catching up with the rest of the region in terms of tourism development, and accelerating this process through innovative solutions and new models for offering and consuming travel experiences will be important. The stimulation of entrepreneurship and new venture creation is a feature of key players in the global tourism industry, especially in Europe. Large players such as TripAdvisor, Airbnb, Booking.com, and Skift are investing in accelerators and other features to fuel innovation in the sector. In addition to the demand-side benefits, the supply side of tourism—in Slovakia and in Snina, in particular—can benefit from stronger partnerships at the destination level, through nascent Destination Management Organization (DMO) structures, and from social and digital media platforms.

Furthermore, a special call of the Ministry of Economy of the Slovak Republic aimed at supporting SMEs within the endogenous potential of tourism development in selected regions of PSK within CURI (call code: OPII-MH/DP/2020/11.3-26) was announced in early 2020s. The main objective of this financing facility is to promote product diversification for SMEs in the district of Snina and further support tourism development at the district level. PSK has been working closely with the relevant communities to educate them about business opportunities and provided a number of training activities to increase their awareness in doing business and expanding horizons in the tourism sector.

No. 6: Remember resilience to climate change as a vital factor in proposed investments

When designing programs and activities, consider implications of climate change for the tourism sector, and outline specific solutions that address them and ensure higher levels of resilience.

Implementation should also meet ambitious goals toward growing tourism in ways that minimize the human footprint by moving away from traditional models and encouraging new approaches to designing and delivering experiences that reduce pressures on the environment.

No. 7: Ensure a phased approach to investments, according to realistic assessments of market readiness.

When implementing the Poloniny project, consider the preparedness of different villages and locations to begin receiving travelers from desired segments. Locations can be categorized according to their market readiness and corresponding investment needs as areas for immediate development, areas for medium-term development, and areas for long-term development. This will ensure the identification of low-hanging fruit that will begin producing revenues in a relatively short period of time while medium- to long-term investments are being made.

It is essential for the success of this program that the proposed actions translate into realistic activities and are informed by ongoing analysis and monitoring. The phasing of investment and development efforts should be based on analysis of existing offerings and of market-ready or close-to-market-ready traveler experiences, as well as assets with potential for becoming products or attractions that would appeal to targeted market segments. Travelers are attracted by key attractions and experiences, but they need a variety of supporting services. The readiness of local destinations to receive and meet the needs of targeted travelers must be comprehensively assessed.³ This means considering the availability and quality of attractions; the current state

³ United Nations World Tourism Organization, *A Practical Guide to Tourism Destination Management* (UNWTO Publications, 2007), <https://www.e-unwto.org/doi/book/10.18111/9789284412433>.

of public and private amenities and supporting services (including visitor infrastructure, guiding services, interpretation services, hospitality services, medical and safety services, and so on); the accessibility, availability, and quality of the workforce; the overall image and character of the place or destination; and competitiveness (by price).

No. 8: Apply relevant market access tactics

In promoting Poloniny to potential visitors, consider adopting market access tactics that are relevant to desired target markets. To attract mostly independent international or domestic travelers, for instance, marketing should emphasize direct communication channels and campaigns that do not require physical presence in other locations. For the markets that rely on facilitation from tour operators, exploration may be needed of the countries/locations of origin of the operators most likely to participate. This may require a physical presence in locations with high concentrations of such tour operators and/or frequent industry gatherings and events. The activation of direct remote communication channels will be particularly advantageous to positioning Poloniny in the adventure tourism market.

No. 9: Pursue a smart strategy

A smart strategy to draw visitors to Poloniny is to align the existing and potential attractions with the travelers interested in exploring them. Given its assets, Poloniny is likely to succeed with individual travelers or those in small groups—both independent and organized—who pursue active exploration of nature and culture and who look to submerge in the local culture. From a practical perspective, the targeting of active explorers from nearby regions is most reasonable, especially in the short term. These would include domestic travelers, regional travelers from neighboring countries, and international travelers who are already in the region.

A smart approach to marketing and promotion requires concentrating financial and decision-making efforts on the target markets most likely to generate the highest returns on investments in the industry. Actions and activities need to be planned very carefully, considering such factors as tourism trends and behavior patterns, market segmentation, and satisfaction levels, all clearly pinpointed in a dedicated marketing strategy and a subsequent operational plan. When designing a strategy or any activity to increase a country's visibility abroad, the following factors are universal:

- 1. Connectivity.** The availability of direct connection greatly affects the number of tourist arrivals at a destination. The UNWTO suggests that improvement of air and land connectivity has positive effects on tourism, with direct flight routes, low-cost carriers, and well-targeted and aggressive marketing for air travel products routinely bringing sharp increases in arrivals.⁴ The same applies to land transportation. Connectivity with Kosice and Poprad Airports remains a challenge that needs to be addressed.
- 2. Visa regulations.** A general consensus that visa restrictions reduce the flow of people to a destination is supported by research showing these regulations result in a decreased volume of arrivals, and that many travelers avoid destinations where visas are required. Therefore, the focus should be made on tourists who require no visa to enter Slovakia.

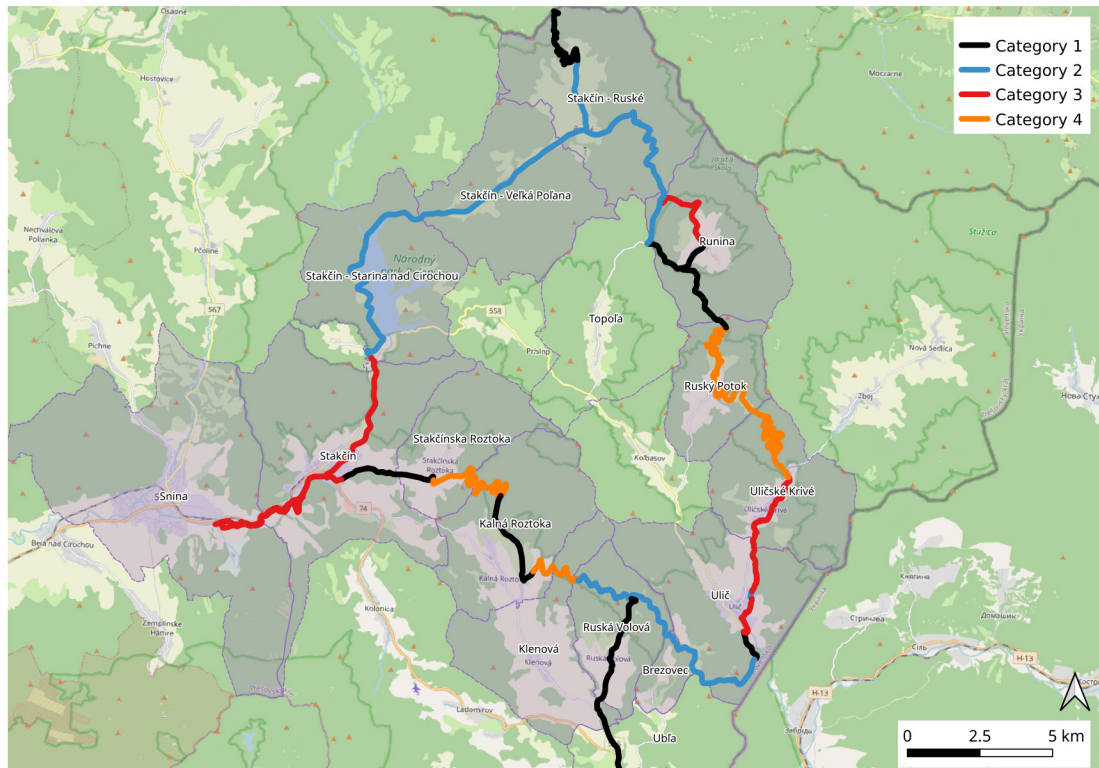
No. 10: Implement with mutual trust, understanding, and a high level of participation

Stakeholder participation, mutual trust, and understanding of the processes involved are key to the successful implementation of the project. Every public or private sector representative, group, association, or individual that is affected or affects the strategy implementation is considered

⁴ Ibid

a stakeholder and needs to be given an opportunity to participate in the implementation process. So far, the process has been well planned and executed by PSK, as a leading partner in the process,

FIGURE 13 Proposed ~90-Kilometer Trail



Source: PSK, OpenStreetMap, 2020

and it shall remain a priority on the way forward.

ANNEX 1: TERMS OF REFERENCE FOR "COMPLETION OF THE POLONINY TRAIL CYCLING INFRASTRUCTURE - PROJECT DOCUMENTATION"

BRIEF DESCRIPTION:

The aim of the contract is to develop a comprehensive project documentation for the implementation of a multimodal recreational circuit, the so-called Poloniny Trail in the Prešov Region in the Snina District with the name "Completion of the Poloniny Trail". The project documentation of the recreational circuit consists of three main parts:

- A. Project documentation for the modernization of the purpose-built road - Starina - a former village Ruské.
- B. Project documentation for the new construction of a recreational route in four sections Runina - Ruský Potok, Ruský Potok - Uličské Krivé, Klenová - Kalná Roztoka, Stakčínka Roztoka - Stakčín.
- C. Project documentation for elements of small tourist infrastructure such as the installation of cycling signs on the entire circuit in the length of about 100 km, including connections to the town of Snina and Ruské sedlo state border between Slovakia and Poland, nature observation points, toilets for visitors, rest areas.
- D. Summary Technical Report of the Poloniny Trail.

We request to deliver the project documentation in the following time stages:

1. Stage - PD - modernization of the existing purpose-built road Starina - former village Ruské - elaboration of project documentation for the modernization of the road for about 16 km of the section, which is currently in a bad construction and technical condition. For this stage, we require the elaboration of project documentation for the announcement of building modifications and maintenance work of the line construction - road repair.
2. Stage - PD - realization of new non-motorized roads and related objects - sections between the villages Runina - Ruský Potok, Ruský Potok - Uličské Krivé, Klenová - Kalná Roztoka, Kalná Roztoka - Stakčín with a total estimated length of about 24 km. For this stage, we require the elaboration of a three-stage project documentation:
 - Exploratory technical;
 - Elaboration of the Documentation for the zoning decision;
 - Elaboration of the Documentation for the building permit in the details of the implementation project.

3. Stage - PD - for elements of small tourist infrastructure on the whole circuit, including connections in the range estimated at 100 km. For this stage, we require the elaboration of project documentation for the announcement of a small construction, elaborated separately for Stage 1 and Stage 2.
4. Stage - summary technical report for the state of building and planning of Cycling infrastructure of the Poloniny trail. In the report, we request to summarize the overall state of readiness of the project plan, which will contain all current data on the state of the planned or implemented infrastructure on the Poloniny trail in one map. The accompanying report provides a comprehensive view and quantifies the requirements for the construction of a recreational tourist circuit for cyclists, pedestrians, runners, cross-country skiers, etc. with modern elements taking into account the surrounding nature, terrain and the degree of nature protection, connection to other tourist infrastructure, financial demands, ownership relations, etc.

SCOPE

Project documentation must be processed in its entirety in accordance with applicable standards and regulations. The budget must be prepared to include all construction, craft and assembly work and correspond to the current price level at the time of processing the project documentation. The item budget and bill of quantities must be in accordance with the codes of budget price lists and must contain specific quantities (figures) of individual items (lengths, areas, cubature, quantities, etc.)

Required activities:

- Elaboration of project documentation
- Engineering activities
- Professional author's supervision

To the extent according to Annex 4 of the UNIKA Tariff 2020 for proposing tender prices for project works and engineering activities and ensuring the activities of the coordinator of project documentation with the elaboration of safety and health protection plans at work according to the activities listed in the Attachment 4 of the mentioned Tariff.

DETAILED DESCRIPTION OF THE CONTRACT

Initial situation

Poloniny Trail (PT) is a planned recreational route that will be a tool for tourism development in the Poloniny National Park. It is primarily intended for cyclists, hikers, and in winter for cross-country skiers. PT passes through the cadastres of the municipalities Stakčín, Runina, Ruský Potok, Uličské Krivé, Ulič, Brezovec, Ruská Volová, Klenová, and Kalná Roztoka. It also envisages connections of PT with Poland in the Ruské sedlo area and with Ukraine at the Ublá border crossing.

The connection to the regional center of Snina, the locality Sninské rybníky (swimming ponds), is especially significant.

PT is located directly in the territory of the Poloniny National Park, the status and subject of protection is described in detail in the National Park Care Program, ŠOP SR, 2016.

Trail Characteristics:

Poloniny Trail will be a recreational multimodal route that will allow visitors to cross the entire Poloniny National Park through a smooth circuit. It will be physically undemanding and can be used by public. The parameters and criteria for the route design are based on the Strategy for the Development of Cycling Transport and Cycling in the Prešov Region, which was approved by the PSK council in May 2020. PT will form the basic axis of the network, to which other local cycling, hiking or horse riding trails, attractions and services will be connected.

The route makes extensive use of existing forest roads and special-purpose roads, which exclude motor traffic, with the exception of forestry and water management vehicles, and which meet the criteria set for a recreational route.

The newly designed sections lead mainly through rugged forest terrain and through pastures. The flysch substrate conditions the formation of soils prone to erosion.

Localization:

1. Stage 1 - VN Starina - former Russian village / cadastre of Stakčín municipality / - former municipality Smrekovica - Runina / cadastre of Runina municipality / - purpose-built road with elements of cycling infrastructure
2. Stage 2 - section 1 - Runina - Ruský Potok - Uličské Krivé, section 2 - Kalná Roztoka - Stakčínka Roztoka, section 3 - Stakčínka Roztoka - Stakčín - recreational route with a permeable surface
3. Stage 3 - additional tourist infrastructure, which will be located in sections according to stage 1 and stage 2 separately - cadasters of municipalities Stakčín, Runina, Ruský Potok, Uličské Krivé, Kalná Roztoka - Stakčínka Roztoka
4. Stage 4 - the whole circuit, including the planned connections - the cadasters of the municipalities of Stakčín, Runina, Ruský Potok, Uličské Krivé, Kalná Roztoka - Stakčínka Roztoka, Ruská Volová, Brezovec, Ublá and the town of Snina.

We request to deliver the project documentation in the following time stages:

Stage 1 - PD - modernization of the existing purpose-built road Starina - former village Ruské - elaboration of project documentation for the modernization of the road for about 16 km of the section, which is currently in a worsened construction and technical condition. For this stage, we require the elaboration of project documentation for the announcement of building modifications and maintenance work of the line construction of the line construction - road repair.

Stage 2 - PD - implementation of new non-motorized roads and related buildings - sections between the villages Runina - Ruský Potok, Ruský Potok - Uličské Krivé, Kalná Roztoka - Stakčínka Roztoka, Stakčínka Roztoka - Stakčín with a total estimated length of about 24 km. For this stage, we require the elaboration of a three-stage project documentation:

- Exploratory technical note;
- Elaboration of the documentation for the zoning decision
- Elaboration of the documentation for the building permit in the details of the implementation project.

Stage 3 - PD - for elements of small tourist infrastructure on the whole circuit, including connections in the range estimated at 100 km. For this stage, we require the elaboration of project documentation for the announcement of a small construction.

Stage 4 - Summary technical report on the construction of the PT - elaboration of a comprehensive technical report, which will contain a comprehensive overview of technical solutions for the construction of the Poloniny trail infrastructure. In the report, we request to summarize the overall state of readiness of the project plan, which will contain all current data on the state of the planned or implemented infrastructure on the Poloniny trail in one map. The accompanying report provides a comprehensive view and quantifies the requirements for the construction of a recreational tourist circuit for cyclists, pedestrians, runners, cross-country skiers, etc. with modern elements taking into account the surrounding nature, terrain and the degree of nature protection, connection to other tourist infrastructure, financial demands, ownership relations, etc. We request to include in the overall technical solution the outputs of other project documentation, which were already finished at the time of design work or are being prepared in parallel: - section for modernization of the forest purpose road Ruské - Smrekovica Zvolen. - sections of new bicycle roads Snina - Stakčín and Ulič - Uličské Krivé - client: Prešov self-governing region, processor: Vodales, Ltd. Zvolen. Graphics will also be part of the report.

In accordance with the above, the Prešov self-governing region plans to commission the elaboration of project documentation of the following stages:

1. Technical study - a complete study of the planned new PT sections, which are currently impassable and require new construction measures. Within the framework of TS and on the basis of performed surveys, we request to submit min. 2 variant solutions - 2 stage;
2. Documentation for the zoning decision prepared for the selected solution - 2nd stage;
3. Documentation for a building permit within the scope of the implementation project at the 2 stage;
4. Documentation for the announcement of building modifications and maintenance work of the line construction of the purpose-built road - 1 stage;
5. Documentation for the announcement of a small construction - 3rd stage;
6. Comprehensive technical solution - 4 stage;
7. Engineering activity for the elaboration of the zoning decision and building permit, notification of building modifications and maintenance works of the line construction - 1st and 2nd stages;
8. Author's supervision - 1st and 2nd stages.

The trail is planned in the mountain environment of the Poloniny National Park, in commercial forests with the 3rd degree of protection in the Snina district. The nature reserves PR Borsučiny and PR Havešová are located near the proposed corridor, but the trail does not pass through them directly.

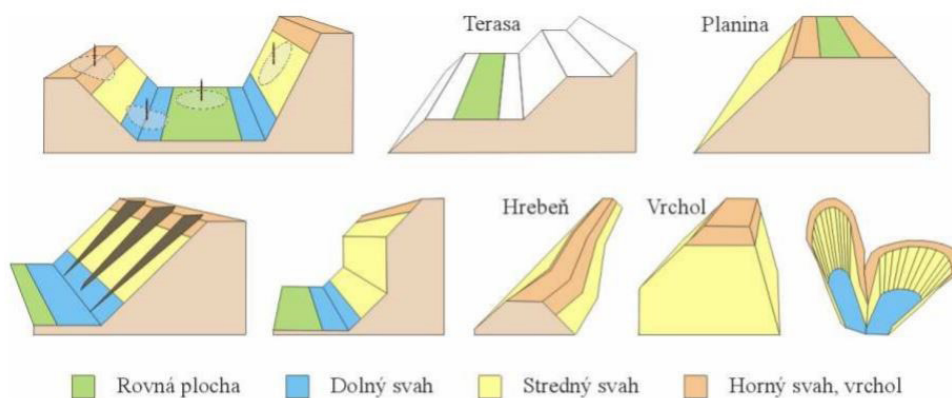
STAGE 1: MODERNIZATION OF THE PURPOSE-BUILT ROAD VN STARINA – FORMER VILLAGE OF RUSKÉ

The purpose-built road section leads from the ramp at VN Starina through the former village Ruské and is managed by state enterprises - the Slovak Water Management Company and the Ulič Forestry Enterprise. It has a disintegrated surface, motor traffic is prohibited in this section, with the exception of SVP and LPM Ulič vehicles. The original road is an asphalt-concrete road, which served as a 3rd class road for the inhabitants of the villages that were displaced due to the construction of the Starina reservoir.

The subject of modernization and repairs of this section of the road will be, above all, the complete replacement of the road cover, including the strengthening of the road curbs. In some sections, it will be necessary to strengthen the load-bearing capacity of the subsoil. At the same time, it will be necessary to ensure the filling and cutting of curbs. In the section of the road, it will be necessary to arrange drainage and restore ditches with the character of micro biotopes of small water retention measures.

The modernization of the road will address:

FIGURE 14 Terrain Types



Source: National Forestry Center, Methodology of Field Data Collection, Zvolen 2006

- Improvement of the existing construction and technical condition of the purpose-built road with complete consideration of pedestrian and cyclists safety;
- Modification and replacement of the damaged road surface, including reinforcement of road edges;
- Design of the new and modification of the existing drainage facilities;
- Application of permaculture elements in the design of ditches and small landscaping to retain surface water;
- Renewal and arrangement of new horizontal and vertical traffic signs, including traffic facilities that take into account the movement of pedestrians and cyclists in the main traffic area;
- Proposal of new safety elements to increase road safety (TP 06/2015: Determination of basic safety elements in the operation of roads, and TP 085/2019: Principles of designing cycling infrastructure);

- Arrangement of traffic speed reduction measures - in some sections, it is necessary to design elements to reduce the speed of vehicles and strengthen measures for pedestrians and cyclists;
- Implementation of transport facilities that will focus on the safety of road users - safety barriers and restraints;
- Implementation of transport subsystems (optical brakes, reflective traffic signs, etc).

The main goal is to modernize and improve the transport and technical conditions of the purpose-built road, which forms a significant part of the Poloniny Trail Project.

The purpose of the proposed modifications is to eliminate known or foreseeable safety risks and restore elements providing road safety, especially for non-motorized transport drivers, expected intensity of which will increase as a result of planned activities. No increase in motor traffic due to construction closure in the area shall be also considered. The aim of supplementing the traffic signs is the prevention and minimization of potential accident at sites among non-motorized road users and commercial vehicles, improving the quality and passability of the road as well as the installation of modern elements of traffic monitoring - automatic counters, etc.).

The project documentation must be processed in its entirety in accordance with applicable standards and regulations.

The proposed budget must include all construction, craft and assembly work and correspond to the current price levels at the time of submitting the project documentation. The itemized budget and bill of quantities must be in accordance with the codes of budget price lists and must contain specific quantities (figures) of individual items (lengths, areas, cubature, quantities, etc.).

Project documentation will be prepared and delivered as the package comprising:

1. The project documentation for the modernization of purpose-built communication in the details of the implementation project. The permit for the construction will be in the form of a line construction notification.
2. The project documentation is prepared in Slovak language, coverings graphics and narrative of the PD and meeting the following criteria:
 - In written (printed) form in 8 copies, (bill of quantities and budget in three copies)
 - In electronic form on three CDs - graphic part in DWG and .SHP format, text part in .doc format, tables in .xls and all in PDF format.

The preparation of PD will also include:

3. Geodetic Survey;
4. Engineering activity - within this activity we request discussion of project documentation for notification of building modifications and maintenance works of line construction with the affected stakeholders until the stage of obtaining all opinions necessary for obtaining a positive statement of the relevant building authority. The Prešov self-governing region will fully ensure the property settlement and the relationship to the investor's land. Evidence of the relationship to the land necessary for the purposes of notification of building alterations and maintenance work of the line construction shall be provided to the contractor.
5. Provision of professional author's supervision;
6. Ensuring the activities of the coordinator of project documentation with the elaboration of safety and health protection plans at work (#5 of the Act no. 396/2006 Coll.).

Deadline for submitting the project documentation for building modifications within the modernization of a purpose-built road for the announcement of a line construction is 5 months from the effective date of the contract. Engineering activity: construction procedure for obtaining a positive opinion for the announcement of a line construction is 1 month.

STAGE 2: PROJECT DOCUMENTATION IN THREE STAGES FOR THE IMPLEMENTATION OF NEW NON-MOTORIZED ROADS AND RELATED BUILDINGS

Required scope of the Technical Study and Feasibility Study

The aim of the study is to process detailed starting materials for the next stages of project documentation.

I. Surveys and analyses

- 1.1. Engineering geological and hydrogeological survey. The survey will be carried out in order to obtain relevant geotechnical information and data necessary for the implementation of the recreational route. The informative value of geotechnical information should enable the management of identified and predicted project risks. For individual stages of construction / preparation of the ground plan, implementation of the substructure of the road and the final construction of the top of the recreational route / we require to provide information and data that will eliminate the risks of accidents, delays and foreseeable damage during its use.

The objectives of the geotechnical survey are to clarify geological and hydrogeological conditions, determine the properties of soils and rocks and obtain additional relevant information about the site. This information should in principle include the conditions of the foundation soil, geological, geomorphological, hydrological conditions. They should also take into account the manifestations of the variability of the properties of the underlying soil. Based on the geotechnical survey, we request to propose technical solutions for the construction and implementation of the construction, which will take into account the economic and environmental aspects of the recreational route.

- 1.2. Geomorphological survey - will be carried out for the purpose of detailed determination of the terrain according to the following criteria:
- Flat surface - terrain with a transverse slope of less than 5%;
 - Lower slope - concave terrain forms with a predominant inflow of water, foot of the slope, lower slope, mould, slope basin, basin, ditch, gorge, etc.;
 - Middle slope - a sloping surface where the outflow and inflow of water is more or less balanced. These are the middle slopes of the mountains, rubble and alluvial cones, heaps of stone blocks, etc.;
 - Peak, upper slope - convex forms of terrain with predominant outflow of water, mountain peaks, hills ridge, positions on the edges of slopes at plateaus, moraines and the like;
 - Very variable - indeterminate. Terrain that cannot be clearly assigned to previous forms, terrain with frequent alternation of inclination and exposure.

Findings will be plotted on a map in .shp and .pdf format.

- 1.3. Survey of slope stability and erosion activity in the area in question - we ask the assessment of slope stability in the area in question with regard to:
 - Occurrence of partial instability of excavation and embankment slopes, i.e. slopes where landslides occur but the safety of users is not endangered and limited, there is no effective vegetation cover on the slopes.
 - Unstable excavation and embankment slopes - soil erosion and slope instability is potentially dangerous for operation.
 - Division of the area of interest into sections that are current but temporarily non-navigable.

Findings will be plotted on a map in .shp format.

- 1.4. Assessment of the area in question in the light of ongoing economic activity and agricultural activity, which may affect the implementation of the construction, such as the extent of felling, the expected occupation of forest land and agricultural land.
- 1.5. Assessment of the area in question with regard to nature protection - description of all types of protected areas and the occurrence of protected species in the 1 km wide corridor, the central axis of which is the line of the proposed recreational route - given in Annex no. 2. Technical parameters
- 1.6. Field investigation of the planned trail and breakdown of the proposed measures by sections. Elaborated record from the field investigation, including photo documentation and focusing of coordinates, and points and lines in .gpx and .shp formats.

In addition to the narrative part and photos, the minutes of the field survey will be developed in a form of a schematic line diagram, in which the newly proposed routes will be divided into 100m long sections and will contain important information about localities and critical places that will need to be taken into account. The line diagram will show a clear identification of the main characteristics of the terrain, which will serve as a basis for assessing the design of alternative solutions for the management of the recreational route. Contents of line diagram D1:

- Topography - along the stream, forest, plateau, slope exposure, etc.;
- Transverse slope - according to individual sections of the route;
- Longitudinal slope of the existing terrain in the given section of the route;
- Attractiveness - nice views, interesting natural objects such as Rocks, waterfalls, mountain meadows, ridges, exceptional trees, flora, technical monuments, Land Art, etc.;
- Ownership relations - indicative tabular overview of ownership relations by sections in the range - private owners, number, state lands, administrator, owner;
- Recommended construction objects on the route such as culverts, wooden bridges and benches over terrain breaks, small water retention measures, retaining or door frames, critical places as well as others that result from the field investigation.

Information from the field will be of tabular arrangement, which will correspond to the line diagram and map - the same designation of the identified findings and their location on the line.

- 1.7. Analysis of wider relations - connection of the main circuit Poloniny trail to existing or planned cycling routes, hiking trails as well as routes for equestrian tourism in the Poloniny National Park and in the Snina district.
- 1.8. Analysis of legislative and legal aspects - assessment of the implementation of construction with respect to the specific situation in the area such as: building closure, economic activity in forests, water management activity - Starina reservoir, environmental protection and identification of ways that will enable the implementation of the planned recreational route.
- 1.9. Analysis and assessment of proposed routes with regard to risk factors - definition of the most critical places in terms of endangerment of the route by natural elements and human impact (e.g. soil, water and air erosion, biological waste management). The analysis will be used to develop points of danger to the elements and human, which must be respected when designing technical measures on the routes.
- 1.10. Analysis of sites for the selection of suitable systems and elements and the interconnection of their functions on the route based on permaculture principles.
- 1.11. Analysis of localities for the location of additional tourist infrastructure and orientation system - definition of potential locations for the location of wildlife observatories, orienteering cycling and tourist signs, rest areas and toilets. We ask you to assess the sites with regard to their functionality, ownership relations and expected benefits for visitors.

2. Design part

- 2.1. The design part will contain at least two variants of route guidance in sections that are defined as new buildings in stage no. 2.
- 2.2. The design part will contain a narrative part and graphics.
- 2.3. The narrative section will include the following:
 - Technical report, minutes of the meetings;
 - Schematic line diagram - table, processed for newly designed sections of the Poloniny trail circuit. Sections of individual measures divided by 100 m will contain significant construction measures that will need to be taken into account when processing the next stages of project documentation. The stationing of individual sections of routes will be given in km to 3 decimal places.
 - Required minimum content of line diagram information and its tabular processing in .xcl format for partial 100 m long sections will include: (1) Proposed route width - earth body; (2) Special section on the route - e.g. rock bypass, stream crossing, U-bend (180°); (3) Drainage facilities and retention measures; (4) Assignment of typical construction measures to individual sections of the route - according to the type of surface, construction, width of the road, in a curve or straight, etc.; (5) Water springs and water lines; (6) Critical points on routes which may be endangered by natural elements; (7) A proposal for the location of small tourist facilities such as shelters, observatories of fauna and flora, benches, modified springs of drinking water, orientation markings, etc.; (8) Indicate in the diagram the beginning and the end of the proposed measures, in the case of a point record add the appropriate attributes.
 - The tabular order of information from the field will correspond to the line diagram and map - the same designation of the identified findings and their location on the line diagram.
 - Description of individual measures for individual locations. Estimated scope of individual measures in the monitored section.

Example: attributes on section KM 60,875 - KM 60,975, route: Ruský Potok - Runina, cadastral area: Runina, type of construction work: new building, geotechnical data: no erosion, road surface: permeable structure, drainage: wooden bullets 2x, right-hand ditch dl. 100 m, average longitudinal slope: + 2.8%, transverse slope: medium 5%, slope of the terrain: 28 °, ownership / administration: LPM Alley, nature protection and permaculture design: 3x respect the position of the tree No.39, 40.41 - gpx coordinates, objects: retaining wall dl.3 m, spring of water - well, tourist equipment: crossroads with cycle route no. 8867.

- The text part will be processed in a tabular form and its data and their designation will correspond to the line diagram itself. For findings that have a point meaning such as spring of water, significant tree, landslide, etc., we ask you to state the coordinates in .gpx format.

2.4. Graphic part will cover the following:

- Clear situation M 1:50 000 - Map of wider relations - connection to existing road and tourist facilities;
- Schematic map - line diagram - graphically displayed list of technical and design measures on the route so that each proposed design solution and measure is assigned an identification code that will correspond to the tabular form of the line diagram and its attributes;
- Schematic map of proposed technical and construction measures - overview of proposed construction measures according to individual sections of the route - proposed surfaces, basic spatial elements and main buildings.
- Catalogue of drawings of typical proposed design solutions covering the following:
 - Exemplary cross-sections according to the type of proposed road cover, structural layers and compositional elements and geomorphological features of the terrain - for example in connection with the typical slope of the slope;
 - Sample drawings for route water management planning;
 - Sample sections to ensure the proposed clearness of the route - with regard to the requirements of its users;
 - Sample cross-sectional and longitudinal section of the culvert using local natural materials - for drainage of surface water from the body of the road, ditch system;
 - Map of the design of the location of small tourist facilities - observatories, rest areas, toilets;
 - Map of the felling of trees and shrubs in the body of the route as well as trees, which it is recommended to keep and adapt to the route;
 - Map of the main interconnection points - route securing markers with regard to the identified risk factors;
 - Model drawings for landscaping, structures and elements respecting human care, protected nature and landscape, based on permaculture design and sustainability.
 - Others that arise during the preparation and field research.
- The graphic part will also contain a proposal for technical solutions of existing routes needed for the overall rounding of the cycle infrastructure.

3. Evaluation of alternatives

- 3.1. It will contain a summary evaluation and proposed measures for at least two variant lines of the recreational route.
- 3.2. It will also include a summary table from surveys, assessments of the proposal for renewal and reconstruction of existing routes and their findings for individual variants and renewal and reconstruction of existing routes, taking into account already designed routes on the cycle circuit as well as connections to existing walking and cycling routes, as well as a summary table according to individual sections, types of proposed measures and cadastral areas, indicative bill of quantities.
- 3.3. **Multi-criteria analysis for proposed alternatives** - the supplier can design his own procedure. The output must take into account the assessment of the feasibility of the construction with regard to the scope, legislative and property relations, environmental requirements and land use, technical complexity of construction measures and indicative quantification of costs. Based on the multi-criteria analysis, the client decides which variant solution or their combination will be the basis for the next stages of the project documentation.
- 3.4. **Economic report** - will include an estimated indicative budget assessment of the effectiveness of the funds spent with regard to the expected use of the route.
- 3.5. We request that the documentation is prepared in four printed copies and in digital form in the following formats: PDF, DOC, XLS, DWG, JPG, SHP according to the nature of the relevant part of the documentation.
- 3.6. The main output of the Technical Study will be the basis for the selection of the final version of the recreational route management.

In addition to the preparation of the Technical Study, we also require the performance of professional author's supervision.

Deadline for processing the Technical Study is 7 months from the effective date of the contract.

Required scope of documentation for the zoning decision:

Required scope of the documents required for the zoning decision will include a narrative part, covering the following:

1. Accompanying report;
2. Technical report, describing characteristics of the area and its impact on the design of the construction, the suitability of the land, the map data used, the current state and basic data on the construction. The main part is a description of the technical and organizational solution of the construction:
 - Description and the planned use of the recreational route;
 - Spatial guidance of the route, intersections, level crossings - basic technical parameters, including justification of their location;
 - Earth body, road structures and building objects;
 - Scope of earthworks;
 - Rest areas and other additional equipment on the recreational route;

- Design of construction organization.
3. Drawings, covering the following:
 - Clear situation M = 1: 50,000;
 - Construction situation M = 1: 10,000;
 - Orthophoto map M = 1: 10,000;
 - Visualizations - significant or characteristic objects;
 - Sections - longitudinal sections in a reasonable scale, sample cross-sections M = 1: 100, cross-sections after 100 m in M = 1: 200;
 - Crossings - clear drawings of footbridges across watercourses, or fords, wooden walkways on pillars in waterlogged or wetland areas board walking (floor plan, longitudinal section, cross section) with the drawing of existing or translated engineering networks;
 - Related construction objects to a reasonable extent and scale, e.g. Culverts, retaining or frame walls, etc. containing coordination situation in M 1: 1 000, 1: 2 000, longitudinal section at an appropriate scale, geotechnical longitudinal section at an appropriate scale, sample cross-sections M 1:50, 1: 100, scheme of safety building modifications, drainage scheme of the building;
 - Rest stops M = 1: 1000;
 - Demolition - state the parcel number and description of the objects, if relevant.
 4. Background and surveys, covering orientation engineering geological survey, hydrological or hydrogeological survey, geological survey, inventory and social assessment of habitats of European and national importance, inventory and social assessment of woody plants growing in the forest and outside the forest - a brief summary of findings from the Technical Study), topography and elevation of the adjacent area M = 1: 1000, or geodetic report.
 5. Documents, including minutes of the meetings and negotiations, statements.
 6. Indicative budget.
 7. Land acquisition, covering the scope of land coverage by individual plots and owners and cadastral areas.
 8. Documentation for land removal from PPF and LPF with the accompanying report, drawings - overview M = 1: 10 000, in the cadastral map M = 1: 2000, calculation of levies for permanent and temporary occupation of LPF; tables - total area of land by type and cadastral area, list of area of forest land;
 9. Documentation for property and legal settlement with geometric plans as a basis for deposit and property settlement, a geodetic report of property relations, map materials M = 1: 2000, and tables with an overview of the extent of land use by owners;
 10. Assessment of the impact of the construction on the environment.

The scope of processing is in accordance with Act No. 50/76 Coll. and TP 03/2006.

We request the documentation to be prepared in six printed copies and in digital form in the following formats: PDF, DOC, XLS, DWG, JPG, SHP according to the nature of the relevant part of the documentation.

Deadline for processing project documentation for the zoning decision is 3 months from the decision of the client to select the final variant of the route of new sections. Engineering activity is scheduled for 3 months from the elaboration of DUR, and author's supervision throughout the proceedings.

Required scope of project documentation for the building permit in the details of the implementation project

The basic content of the DSP is determined by the Decree of the Ministry of the Environment No. 453/2000 Coll. The DSP must contain a separate annex on compliance with the conditions of the EIA IB and environmental protection measures with details appropriate to the degree of documentation. In particular, the following must be applied when processing the dossier:

- The builder's documents and requirements;
- The conditions of the zoning decision;
- Documentation for the zoning decision;
- Results of own and downloaded surveys;
- Relevant technical and legal regulations and standards;
- All contractual arrangements;
- Decision on permanent land withdrawal from PPF and LPF;
- Property settlement (redemptions and expropriation).

The narrative part will include the following:

1. Accompanying report;
2. Summary technical report with the following elements:
 - Characteristics of the construction area;
 - Urban, architectural, transport and construction technical design of the building;
 - Main construction works such as earthworks, roads, crossings, drainage with an impact on groundwater and surface water, construction implementation as access to the construction site, waste management, construction site equipment, earthworks, etc.
3. Construction objects - a detailed technical report to the extent necessary for the construction, describing the existing state and newly proposed state, including solutions on how to approach objects interfering with the project (e.g. intersections with motor traffic such as entrances to objects, in case of field passage of agricultural vehicles through the cycle route, in case of forest roads passage of forest vehicles through the cycle route, in case of dikes the passage of service equipment).

For all objects, justification of the object, its location (cadastral area, in case of transition by several cadastral areas; access to the section/building during construction, basic information about the building (width arrangement, length, road construction, material and profile of drainage facilities if applicable, or other interesting or characteristic information about the building.

4. Construction costs - budget summary, budgets of individual construction objects, statement of area.
5. Additional project documentation, if required (e.g. demolition work, hydrogeological assessment, geological assessment, arable land reclamation project, forest land, retaining wall, fencing, static assessment, etc.).

The graphics will cover the following:

1. Clear situation at M 1:50 000;
2. The overall situation at M 1:10 000;
3. Situation on the cadastral map at M 1: 1 000;
4. Longitudinal section at M 1:10 000/1 000;
5. Orthophoto map at M 1:10 000;
6. Orthophoto map at M 1: 2 000;
7. Visualizations covering coordination drawings at M 1: 1 000;
8. Documents and drawings of objects;
9. Documentation of measuring works - Purpose map and profiles, Stakeout network, Layout of spatial position, Documents for geometric plans;
10. Documentation of property - legal settlement - drawings: Geometric plans, Geometric plans for marking the easement (engineering networks), Situation of land acquisition;
11. The drawing describing the situation of the section/object in the base;
12. Graphic part of the geometric plan (state KN + PK) with indication of its number, parcel number, cadastral border with the name of cadastral territories, cadastral territory (territories) indicate above the breakdown of each drawing, boundary of permanent and temporary shots and shots up to one year, axes and stationing of object, scale, marking of world sides; in the attached table, a list of the parcels concerned (permanent occupation, temporary occupation, occupation up to one year, encumbrances) at the scale from M = 1: 500 to 1: 5,000 (according to the extent of the object, so that the drawing is legible). The drawing forms the basis for concluding lease agreements with landowners or land managers.

Documentation for permanent and temporary resettlement from Agricultural Land Fund (ALF) and Forest Land Fund (FLF), comprising the following:

1. Documentation for permanent and temporary removal of land from ALF- according to Decree No. 508/2004 Coll, which covers #27 of Act No. 220/2004 Coll on the protection and use of agricultural land.
2. Documentation for permanent or temporary removal of land from FLF prepared in accordance with Act 326/2005 Coll about forests. It will have an accompanying report, a graphic part and clear tables in which the following will be listed:

- Overview of land images from FLF - permanent area,
- Overview of land images from FLF- temporary area and area up to 1 year
- Total area of forest land by cadastral areas, supplemented by a plan of the building (permanent and temporary areas).
- It will include the calculation of levies for forest removal (expert opinion).

Survey documentation;

Impact of construction on the environment;

Indicative budget for informal use covering awarded statement of area by individual construction objects and operational files of the construction, and formal use with an unappreciated statement of acreage by individual buildings and operating files for the needs of public procurement.

Induced investments offering detailed technical solution of the induced investment must be included in the documentation for the building permit. The documentation will form a separate annex. In case of resolving the induced investment, this documentation is processed separately. It must contain an opinion of the owner of the translated equipment/construction.

In the case of reallocation of engineering networks and provided that it is provided by the owner of the facility, this must also be stated in the project documentation.

We request that the documentation is prepared in eight printed copies and in a digital form in the following formats: PDF, DOC, XLS, DWG, JPG, SHP according to the nature of the relevant part of the package. Deadline for processing project documentation for a building permit is 3 months from the entry into force of the zoning decision. Engineering activity and construction procedure for the purposes of building permit is 3 months from the elaboration of the DSP, and author's supervision is also considered.

STAGE 3: PROJECT DOCUMENTATION FOR ELEMENTS OF SMALL TOURIST INFRASTRUCTURE ON THE ENTIRE CIRCUIT

Project documentation for elements of small tourist infrastructure on the entire circuit will include connections in the range estimated at 100 km. For this stage, we require the elaboration of project documentation for the announcement of a small construction. It consists of two main segments:

1. Elaboration of PD for objects of tourist equipment, such as in living nature, rest areas and toilets.
2. Elaboration of a PD for the installation of the orientation marking of the Poloniny Trail circuit and its connection to the existing cycling and hiking routes in the target area of the Poloniny National Park and the Snina district

The project documentation for objects of tourist equipment, observably living nature, rest areas and toilets.

Based on the architectural design approved in accordance with the Technical Study, project documentation will be prepared for the announcement of a small construction for each building separately. The technical details given in the project documentation must correspond to the

surrounding environment, make maximum use of local resources, such wood, stone, and their location will not create an obstacle for animals and plants. It is especially necessary to address the management of waste in the locations of observatories and resting places so that they are inaccessible to animals, especially large carnivores such as bears.

The design and location of toilets in the Poloniny National Park must correspond to the strict principles of nature protection as well as the subsequent management of biological waste and its disposal.

Individual buildings must not exceed the dimensions of 25 square meters each.

The PD will also include documentation for the announcement of a small building and their location in the cadastral map. Total number of observatories: 4 pcs, number of rest areas and benches - 20 pcs, toilets - 10 pcs.

Required scope:

Project documentation of proposed and approved types of small tourist equipment - observatories, toilets, rest areas - for the announcement of a small construction will be prepared in accordance with the Building Act and applicable legislation.

Elaboration of project documentation for the installation of indicative markings of the Poloniny trail circuit and its connection to the existing cycling and hiking routes in the target area of the Poloniny National Park and the Snina district.

The content of the simplified project documentation will include: main characteristics of the route, spatial arrangement of the route, coordinate system and height profile, description of ownership and property rights to real estate on which the placement of land marking is planned, list of affected entities, location and scope of marking.

For cycling routes, description, display and display of cycling signs will correspond to STN 018028 Cycling signs, and for hiking trails to STN 018025 Tourist signs.

Required scope:

Assumed extent of marking of the main circuit, including connecting sections from the regional center Snina - direction of Stakčín. Estimate about 100 km;

Estimated range of additional walking and cycling routes around the main circuit - estimated approximately 200 km. These are the existing cycling and walking routes, which feed into the main circuit. In view of the forthcoming new findings, we allow a deviation of +/- 10% of the total proposed length;

PD for announcing a small construction of indicative guidelines;

Engineering activity;

Author's supervision.

STAGE 4: REQUIREMENTS FOR THE ELABORATION OF THE "SUMMARY TECHNICAL REPORT (STS) FOR THE CONSTRUCTION OF THE POLONINY TRAIL"

The report will include several sections, as described below.

The narrative part will cover the Summary Technical Report (STS) with a comprehensive overview of technical solutions for building the Poloniny Trail infrastructure and summaries of the following:

- The overall state of readiness of the project plan, which will contain all current data according to the degree of the prepared PD, or the implemented infrastructure on the Poloniny Trail;
- Quantifies the technical measures for the construction of the entire recreational tourist circuit, including the planned connections with regard to the anticipated requirements for the users, including cyclists, pedestrians, runners, cross-country skiers, etc.;
- Summary of the technical requirements in terms of the scope of the proposed technical measures, buildings, location of small tourist infrastructure;
- Quantifies of the list of ecosystem measures and elements taking considering the environmentally sensitive area, the occurrence of protected species, the degree of nature protection;
- All connections to other tourist infrastructure, cycling and hiking trails;
- Quantifies the financial complexity of the work by cadastral areas, by type of construction measures;
- Summary of ownership relations under the planned PT infrastructure.

In addition, the outputs of other project documentation, which were already finished at the time of design works or are being prepared in parallel are also included in the report. This may cover (1) section selected for modernization between Ruské - Smrekovica Elected, and (2) sections of new bicycle roads Snina - Stakčín and Ulič - Uličské Krivé - client: Prešov self-governing region, processor: Vodales, Ltd., Zvolen.

The graphic part will contain:

- Overall situation of PT readiness in scale M 1:50 000;
- Overall situation of technical measures of PT in scale M 1:50 000;
- Overall situation of the list of ecosystem measures PT in scale M 1:50 000;
- Total situation of connection to other tourist infrastructure PT in scale M 1:50 000;
- Visualization - placement of proposed technical measures and small tourist infrastructure in real photographs - patterns for lines, pattern for observatory, pattern for rest area, pattern for orientation markings.

FORMAL REQUIREMENTS FOR THE SUPPLIER DURING PD PROCESSING:

- The technical solutions of the construction will respect the relevant technical and legal regulations and standards and must be economical both in terms of implementation and in terms of operation and maintenance;

- All substantiated requirements and conditions from the statements and decisions of the state administration bodies, self-government bodies and network administrators will be incorporated;
- All annexes of individual parts of the documentation will be confirmed by a professionally qualified person in the relevant field in accordance with the valid regulations;
- Compensatory and elimination measures will be proposed in order to reduce the impact of the construction on the environment;
- Documents will be processed for possible deviations from technical solutions from valid standards and regulations;
- A draft of the expected time schedule of construction works, a plan of construction organization (POV) will be prepared;
- During the PD elaboration, the proposed technical solutions will be discussed with the relevant bodies and organizations, including utility network administrators and other future owners, or administrators of construction objects, followed by the incorporation of substantiated requirements and comments. Negotiations will be convened by the contractor in cooperation with the customer;
- The contractor of the project documentation shall convene a working meeting within 45 days from the date of entry into force of the contract in order to inform and evaluate the development of the PD; and whenever the contractor identifies reasons that could lead to a delay in the performance period (e.g. the cause of the delay caused by the authorities, offices, utilities concerned, etc.);
- The concept of individual PD stages is submitted by the designer to the client and the client's representatives for inspection and comments no later than 14 days before the deadline for delivery of documentation for a period of 5 working days;
- Participation of the designer is required in construction proceedings, or other negotiations related to the construction in question, even after the expiration of the delivery date of the documentation in question, if the client invites him to do so.

FIGURE 15 Illustrative example of the form of Poloniny Trail in NP Poloniny



Source: runningmagazine.ca

ANNEX 2: IMPLEMENTATION TIMELINE BY STAGES

The proposed timeline is tentative and changes may apply during the course of project implementation.

For the presentation purposes, the time required for each has been presented on a monthly basis for the years of 2020 and 2021, and in quarters from 2022 onwards. Dark shaded cells in the tables on the following pages show the core tasks, while the tinted cells cover the sub-tasks.

The detailed timeline represented by weeks is available in a separate file from the PSK team.

STAGE 3: REMAINING SECTIONS*

#	Activity	2020 (months)						2021	2022 (quarters)				2023 (quarters)				2024	2025
		6	7	8	9	10	11		12	1	2	3	4	1	2	3		
1	Public procurement process																	
	Preparation of Terms of Reference																	
	Determination of the estimated contract value through the provision of three quotes																	
	Procurement process																	
	Contracting																	
2	Preparation of the design package																	
	Documentation package preparation for the zoning decision (DUR)																	
	Documentation package preparation for the construction permit (DSP)																	
3	Environmental permits including EIA and NATURA 2000																	
4	Land resettlement process																	
	Slovak Land Fund (Expert opinions (2-3 weeks), approval by PSK representatives, then sending of opinions, resolutions, geometric drawings and the SPF zoning plan, which will take place on the basis of delivery of these documents)																	
	Other state institutions (VVS, LPM, municipalities) - lease agreements (price, delimitation of plots, purpose of lease, building maintenance, etc.), preparation of contracts, signature																	
	Private owners - approval of the final version of the route by the municipal council, convening of the affected owners, negotiation of the method of settlement (lease/purchase)																	
5	Provision of the building permit (from 30 to 60 days, plus the designation of validity for 15 days)																	
6	Procurement of construction works																	
	Preparation of bidding documents																	
	Public procurement process (determination of the estimated value of the contract, ex ante control at Ministry, public procurement process, second ex-ante control at the Ministry, contracting)																	
7	Construction work																	

* Refer to the map for details