Action plan
Pasvik-Inari Trilateral Park
2019-2028

2019

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Cover photo: Young generation of birders and environmentalists looking into the future (Pasvik Zapovednik, O. Krotova)

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Action Plan
Pasvik-Inari Trilateral Park
2019-2028

Pasvik Inari
Trilateral Park

Fylkesmannen i Troms og Finnmark
Romssa ja Finnmárkku fylkkamánni
Tromssan ja Finmarkun maaherra

Øvre Pasvik
National Park

Pasvik Naturreservat
Заповедник Пасвик

METSÄHALLITUS

Preface

In this 10-year Action Plan for the Pasvik-Inari Trilateral Park, we present the background of the long-lasting nature protection and management cooperation, our mutual vision and mission, as well as the concrete development ideas of the cooperation for the next decade. The plan is considered as an advisory plan focusing on common long-term guidance and cooperation.

The vast cooperation area referred to as the Pasvik-Inari trilateral park comprises of six protected areas in the Lake Inari and Pasvik river vicinity and their close surroundings in three countries of Finland, Norway and Russia. The protected areas are Vätsäri Wilderness Area and Lake Inari Natura2000 area in Finland, Øvre Pasvik National Park, Øvre Pasvik Landscape Protection Area and Pasvik Nature Reserve in Norway and Pasvik Zapovednik in Russia. Trilateral cooperation between the management authorities in the three countries has been active ever since the establishment of the protected areas in early 1990s.

In recent years, the cooperation has intensified, and the trilateral park has been certified as EUROPARC transboundary park since 2008 (re-certified in 2013 and 2018).

The Action Plan has been jointly compiled by the main partners and stakeholders in the cooperation. This is the second joint action plan in the cooperation. The plan is seen as a well-functioning and joint operational tool.

The Advisory Board of the trilateral park appointed the trilateral working group to start the updating process in its meeting in August 2017. The actual writing process started in April 2018 based on the jointly agreed vision and mission, main objectives and specific objectives formed at a brain storm meeting in Svanvik 4.-6.4.2018[1]. Advisory board accepted the action plan by e-mail correspondence during December 12th, 2018 - January 28th, 2019.

The directors of the protected areas in respective country passed the proposal on e-mail by 31.1.2019.

Bente Christiansen Director	**Kurt Wikan** Leader	**Vladimir Chizov** Director	**Jyrki Tolonen** Regional Director
Environmental Department County Governor of Troms and Finnmark, Norway	Øvre Pasvik National Park Board, Norway	Pasvik Zapovednik, Russia	Parks & Wildlife Finland

[1] https://prosjekt.fylkesmannen.no/Pasvik-Inari/News/Towards-a-New-Action-Plan/

Abstract

Action Plan for Pasvik-Inari trilateral park cooperation 2019-2028.

In this action plan we present the background of the international cooperation, the mutual vision and mission for our cooperation, as well as the main and specific objectives, and concrete development ideas of the cooperation. The plan is considered as an advisory plan focusing on common long-term guidance and cooperation.

The vast cooperation area referred to as the Pasvik-Inari trilateral park comprises of six protected areas in the Lake Inari and Pasvik river vicinity and their close surroundings in three countries of Finland, Norway and Russia. The protected areas are Vätsäri Wilderness Area and Lake Inari Natura2000 area in Finland, Øvre Pasvik National Park, Øvre Pasvik Landscape Protection Area and Pasvik Nature Reserve in Norway and Pasvik Zapovednik in Russia.

Trilateral cooperation between the management authorities in the three countries has been active ever since the establishment of the protected areas in early 1990s. The Advisory Board consists of members from following organisations: Metsähallitus Parks & Wildlife, Centre for Economic Development, Transport and the Environment (Lapland ELY-centre) and Inari Municipality in Finland, the Office of the Finnmark County Governor, Øvre Pasvik National Park Board and Sør-Varanger Municipality in Norway, Pasvik Zapovednik, Pechenga District Municipality, Nikel local municipality and the Ministry of Natural Resources and Environment of Russian Federation, Ministry of Economic Development of the Murmansk region in Russia.

In recent years, this cooperation has been intensified, and the trilateral park has been certified as EUROPARC transboundary park since 2008 (re-certified in 2013 and 2018).

This action plan was compiled by the cooperation partners as part of the regular cooperation in 2018. There will be a mid-term evaluation of the plan, after 5 years, in 2023.

Our vision is "*Pasvik-Inari Trilateral Park is a unique cooperation for the benefit of nature and people".*

Our mission is: *Through transboundary cooperation we cherish nature and raise awareness on biodiversity conservation and living cultural heritage. We promote sustainable development in the joint border area of Finland, Norway and Russia, as well as human health and wellbeing*

The main objectives of this international, transboundary nature protection cooperation are:

1. Enhance transboundary cooperation and contacts at all levels.
2. Conserve natural and cultural values of the Pasvik-Inari region on a long-term basis.
3. Raise awareness and promote recognition of the area.
4. Contribute to the sustainable development and create positive local economic impact.
5. Facilitate for health and wellbeing of the people.

Under these five main objectives we have derived 15 specific objectives and c. 66 concrete actions that you will find in Part B of this action plan.

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Introduction

This document presents the background and the future development needs and plans for the trilateral park cooperation in the Pasvik-Inari area. The area comprises of six protected areas and their surroundings in three countries of Finland, Norway and Russia, in the vicinity of Lake Inari and Pasvik river. The protected areas are Vätsäri Wilderness Area and Lake Inari Natura 2000 area in Finland, Øvre Pasvik National Park, Øvre Pasvik Landscape Protection Area and Pasvik Nature Reserve in Norway and Pasvik Zapovednik in Russia. In this action plan, the background of the cooperation and mutual vision, mission and concrete development ideas of the cooperation are documented. The plan is considered as an advisory plan focusing in common long-term guidance.

Trilateral cooperation between the management authorities in the three countries has been vivid ever since the establishment of the protected areas. The Advisory Board consists of members from following organisations: Metsähallitus Parks & Wildlife Natural, Lapland ELY-centre, Inari Municipality, the Office of the Finnmark County Governor, Øvre Pasvik national park Board, Sør-Varanger Municipality, Pasvik Zapovednik, Pechenga District Municipality, Nikel local municipality and the Ministry of Natural Resources and Environment of Russian Federation, Ministry of Economic Development of the Murmansk region in Russia. Relevant stakeholders are invited as observers (i.e. WWF Barents Office Russia, NIBIO Svanhovd Norway) to meetings and other events. Planning of the future activities requires mutual understanding of the goals and adequate knowledge of the background. This is the second joint action plan for the trilateral park. It is agreed that a joint action plan is a good strategic tool (manual) and also an operative guideline for the cooperation, which is in active, almost every day use. The basic information concerning the area in general and the protected areas in special is been compiled so that it will benefit not only the authorities but also be of use for anyone who wishes to learn more about the area.

Part A of this Action Plan presents the specific characteristics of the area. This includes basic information about nature, culture and history and information about the legislation, land use and management of the areas. Different legislation and practices guide the use and management of the areas and the level of protection also differs. In addition, management plans, national area plans, regional plans etc. must be considered and acknowledged when planning and implementing the actions. Also, knowledge of international agreements, conventions, practices and planning in each country is needed when mutual actions are planned and implemented.

Part B of this plan focuses on the future. The 10-year vision and mission were developed to actualise what the cooperation is aiming at. The five (5) main objectives and the 15 specific objectives point out the joint level of aspiration and joint road ahead. Active and well-structured cooperation is needed to achieve the level of aspiration by 2028. Annually the established trilateral working group reports to the Advisory Board on how the actions implementation is proceeding, and at the same time they receive the new recommendations of the next years prioritised actions (see annual cycle). There is also planned a more thorough mid-term evaluation of the action plan and its actions in 2022-2023.

The five main objectives that guide the cooperation includes: enhancement of cross-border cooperation at all levels, conservation of natural and cultural values, area promotion and awareness raising, contribution to the sustainable development and positive local economic

impact and facilitate good health and well-being both of the local people and visitors to the area.

The Action Plan was compiled by the trilateral working group, with good help from the Advisory Board.

History of the trilateral cooperation

The Norwegian part of Lake Höyhenjärvi (Fjærvann) in the Pasvik river was proposed as a nature reserve for the first time already in 1978 due to its nature values. In 1989, when Russia and Norway signed their first bilateral agreement on environmental issues, the idea of a common Russian-Norwegian nature reserve was born. The idea was discussed on at regional level and later on a national level, which resulted in the authorities on both sides gave their approval for further work towards a concrete proposition to establish a twin reserve. After the first Norwegian-Russian inspection of the area in the summer of 1990, the Russian experts proposed also to include large zones of pine forest on the eastern bank of the Pasvik river. Therefore, on the Russian side, the reserve covers much more than just Lake Höyhenjärvi (Fjærvann) area. The first joint inspection was followed up by a number of Norwegian-Russian registrations and meetings.

In an intentional agreement between Norway and Russia in 1990, nature protection in the border areas was considered in a broader perspective where also Finland was seen as a natural partner. In 1991, environmental authorities from Russia, Norway and Finland met in Kirkenes and again in Nikel. The conclusion was that the three countries at the regional level should cooperate on nature protection and nature management in the Pasvik-Inari region. Furthermore, the parties aimed at protection of a large intact nature area as a common entity. Vätsäri Wilderness Area was established in Finland through the national Wilderness Act the same year.

Since 1991, annual trilateral meetings have been held on nature management and protection in the Pasvik-Inari region, between the Office of the Finnmark County Governor and the Directorate of Nature Management from Norway, Metsähallitus and the Ministry of Environment and later also Regional Environment Authorities in Lapland/ Finland and the State Committee on Environment, later the Committee on Nature Resource, and administration of Pasvik Zapovednik from Russia. Pasvik Nature Reserve/Pasvik Zapovednik was formally founded through a resolution in the Russian Government July 16th1992, whereas the Norwegian part of Pasvik Nature Reserve was formally founded through regal resolution in October 15th1993. To distinguish the two parts, it is common to identify the Russian part as Pasvik Zapovednik and the Norwegian part as Pasvik Nature Reserve. In 1996, the Norwegian part received international protection status as a Ramsar area due to its rich and characteristic water bird fauna. There is great interest to also nominate the Russian part of the twin reserve as Ramsar area, and work has been done to enable this nomination in the future.

In 1999, the municipalities of Pechenga, Inari and Sør-Varanger were included in the trilateral cooperation on a permanent basis. At annual trilateral meeting in 2002, it was decided to promote a common trilateral nature protection area in Pasvik-Inari. Such a protection area could be established by connecting adjacent nature protection areas in Pasvik-Inari which are already founded. A working group was appointed to develop this idea. In 2003, Øvre Pasvik National Park was extended. At the same time, Øvre Pasvik Landscape Protection Area was

established. Finally, a continuous stretch of areas from Finland via Norway to Russia was protected.

In the years 2006-2008 a jointly planned EU financed project (Interreg IIIA North Kolarctic Neighbourhood Programme/Tacis programme) was implemented in the Pasvik-Inari area. The project *"Promotion of nature protection and sustainable nature tourism in the Inari-Pasvik area"* aimed and succeeded in creating a more stable basis for the trilateral cooperation. Amongst many project activities, also a more stable basis for trilateral cooperation was established, by achieving the EUROPARC Transboundary Parks Certificate in 2008. The Transboundary certificate ensures a long-term, high quality cooperation in nature protection and management in Pasvik-Inari area. It was renewed in 2013 and in 2018[2].

In January 2008, a trilateral cooperation agreement was signed by the main partners in cooperation. In this agreement the focal fields of cooperation are identified, as well as the organisations and protected areas that are involved in the cooperation.

In the years 2012-2014 the EUs Kolarctic ENPI CBC project *ABCGheritage – Our shared northern heritage*[3], was implemented. The trilateral park cooperation managed through this EU project to implement many of the listed actions in the first action plan that needed external funding, e.g. documentary film, temporal exhibition, book projects etc.

In the coming years many more EU projects will be developed and implemented. In 2017, two Kolarctic CBC 2014-2020 projects were approved for funding, KO1110 *Cross-border dialogue and multiuse-planning in the Pasvik and Grense Jakobselv river catchments* and KO2093 *Phenomena of Arctic Nature – PAN* and will be implemented in the coming years by selected partners in the trilateral park cooperation.

The Action Plan process

This Action Plan has been jointly compiled by the main partners in the cooperation. This is the second joint action plan in the cooperation. Due to the plan is seen as an operational and well-functioning joint tool the Advisory Board of the cooperation appointed the trilateral group to start the updating process in its meeting in August 2017. The actual writing process started in April 2018 on the basis of the jointly agreed vision and mission, main objectives and specific objectives formed at a brain storm meeting in Svanvik 4.-6.4.2018[4].

A SWOT analysis (Adams 2005) was made in the end of 2017, for the EUROPARC Transboundary certification re-evaluation process and again jointly reviewed at the brain storm meeting in April 2018. The SWOT analysis is highlighted in Annex 1. The Advisory Board was consulted during the writing process. Advisory board accepted the action plan by e-mail correspondence during December 12th, 2018 - January 28th, 2019.

The plan will be subject to a mid-term evaluation, after 4-5 years, in 2022-2023.

[2] https://prosjekt.fylkesmannen.no/Pasvik-Inari/News/Evaluation-visit-from-EUROPARC-Federation/
[3] http://www.metsa.fi/web/en/abcgheritage
[4] https://prosjekt.fylkesmannen.no/Pasvik-Inari/News/Towards-a-New-Action-Plan/

PART A

The Pasvik-Inari-Pechenga area

The lush valley of the Pasvik river stretches from the largest lake of Finnish Lapland, Lake Inari, towards the Barents Sea, along the borders of Finland, Norway and Russia. The Lake Inari area and Pasvik valley are known for their great natural and cultural values. The Pasvik river and the surrounding wilderness comprise a unique nature system where the European, Eastern and Arctic species meet. Some of these species reach here the ultimate limits of their distribution. The valley also forms a diverse habitat for various plant and animal species. In the surrounding wilderness areas, the species inhabiting the rugged, rocky wilderness are required adaptations to extreme conditions.

Fig 1. The Pasvik-Inari area

Culturally and historically the area is remarkable, also as a meeting point of different cultures. The lake shores and riverbanks have been inhabited for centuries. The river was an important channel from inlands to the Barents Sea along which trades were transported. Later the battle for nickel found in Pechenga brought changes to the area when the rapids of the Pasvik river were needed for energy production to melt nickel. Despite the changes the area has undergone, the river valley with its surroundings has preserved its natural values and the diversity of species. The specific features of the area make it an attractive nature and culture destination.

Protected areas in Pasvik-Inari-Pechenga region

The planning area comprises the six protected areas and their surroundings in Finland, Norway and Russia. Vätsäri Wilderness Area and Lake Inari Natura 2000 area in Finland are

located both in the Inari Municipality in the County of Lapland. In Norway there are altogether three protected areas, Øvre Pasvik National Park, Øvre Pasvik Landscape Protection Area and Pasvik Nature Reserve in Sør-Varanger Municipality, in the County of Finnmark. Pasvik Zapovednik in Russia is situated in the Municipality of Pechenga, Murmansk Region.

Green Belt of Fennoscandia

The Pasvik-Inari area is part of the Green Belt of Fennoscandia[5], a chain of protected areas from the Barents Sea to the Baltic Sea. The Green Belt idea date back to early 1990s when the Russian border zone of the 1 250-km borderline between Finland and Russia narrowed and, at the same time, extensive loggings were planned in valuable, intact forest landscapes in the border area. The Green Belt of Fennoscandia aimed at protecting biodiversity and promoting cooperation in nature conservation, research and culture, as well as creating an extensive protected area network on both sides of the border. The idea has been further promoted and implemented by managers of nature protection areas, scientific institutes and non-governmental organisations in Finland, Norway and Russia. The Green Belt is not a continuous area but a network of existing and planned protected areas. The Fennoscandia green belt is part of the European Green Belt initiative[6].

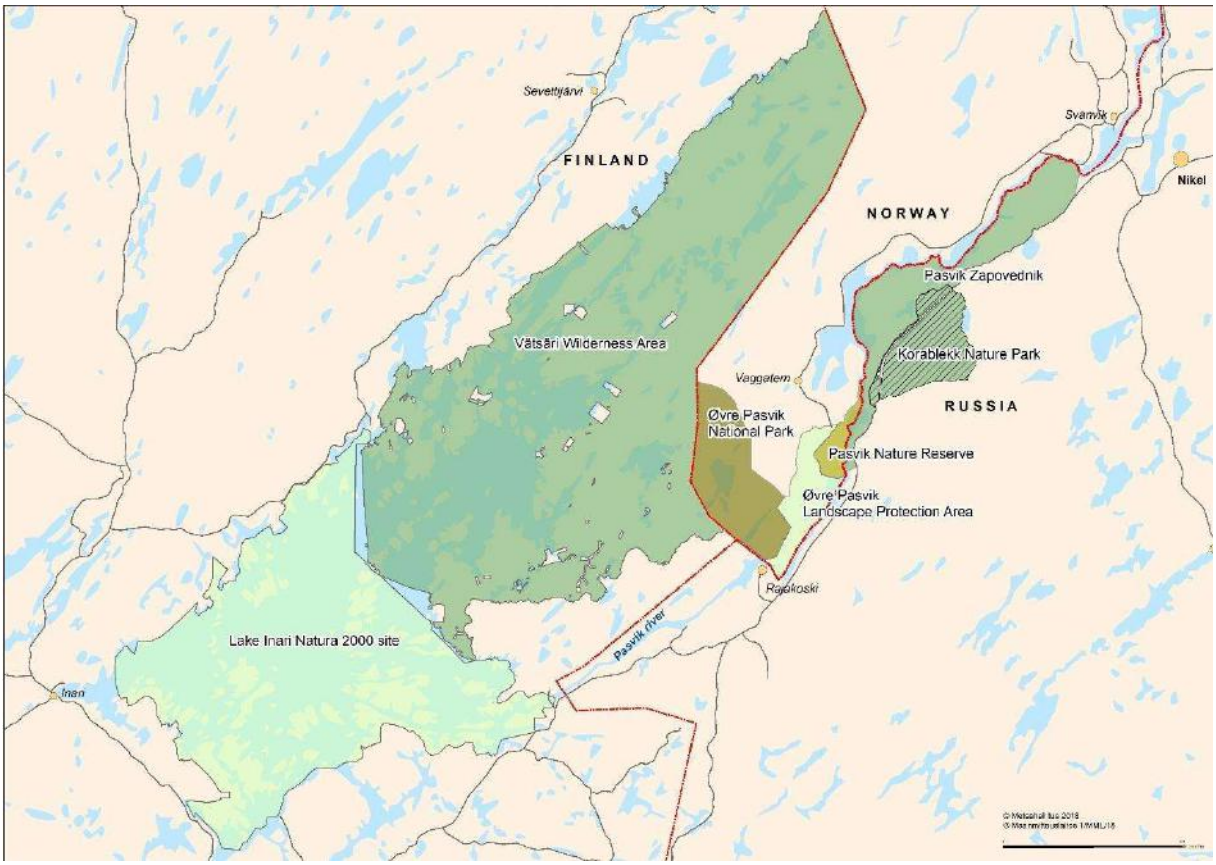

Fig. 2 The nature protection areas of Pasvik-Inari trilateral park

[5] http://www.ym.fi/en-US/International_cooperation/Green_Belt_of_Fennoscandia

[6] http://www.europeangreenbelt.org/

Vätsäri Wilderness Area and Lake Inari Natura 2000 area in Finland

Vätsäri Wilderness Area (1550 km²) is one of twelve wilderness areas in Finland. The wilderness areas were established in 1991 to protect the wilderness characters of the areas, to safeguard Sámi culture and traditional subsistence uses and to develop the potential for diversified use of nature. The combined area of all Finland's 12 wilderness areas measures 14 890 km². The wilderness areas are managed by Metsähallitus, Parks and Wildlife Finland. The wilderness areas in Finland were designated under the Wilderness Act of 1991 (62/1991). Although the areas are not directly designated under the Nature Conservation Act, they do serve the conservation aims. Vätsäri Wilderness Area is also part of the Finnish Natura 2000 network (FI1300204), which places the wilderness area under sections 65 and 66 of the Nature Conservation Act (1096/1996). Vätsäri Wilderness Area includes the north-eastern part of Lake Inari. The southern/southwestern part of the lake, measuring ca 900 km², is also part of Finland's Natura 2000 network (Lake Inari FI 1300212). In Finland Natura 2000 Network is mostly based on already existing nature reserves. The network also protects natural features which have not been protected so well before, such as the underwater natural features of the archipelago and the coast, large rivers, small waters, rocks, cultural landscapes and lakes. Lake Inari 2000 area is protected too by nature conservation programme on shorelines.

Archaeology so far, 68 archaeological sites have been documented in the area. The most recent archaeological surveys have been done in the area in 2008 (Lake Inari) and 2014 (Vätsäri). The archaeological sites found in the area are mostly dwelling sites dating to prehistoric and historic times, deer hunting pits, remains of logger's huts and sacred sites. Probably the best-known archaeological sites in the area are Äijih sacred site (Ukonsaari in Finnish), two burial islands Hautuumaasaari and Vanha Hautuumaasaari, and the old Ruija route from Finland to the Arctic Ocean. Most of these sites are protected by the Antiquities Act. There is one protected building in the area managed by Metsähallitus Luontopalvelut called Petäjäsaari wilderness hut. In addition, many old buildings in the area, such as Suolistaipale, Pisteri and Kaikunuora wilderness huts, have historical value.

In Annex 2 you find more information on national legislation and management plans.

Pasvik Nature Reserve, Øvre Pasvik National Park and Øvre Pasvik Landscape Protection Area in Norway

There are three nature protection areas that belong to the Norwegian part of Pasvik-Inari Trilateral Park: Pasvik Nature Reserve, Øvre Pasvik National Park and Øvre Pasvik Landscape Protection Area. All areas are established through the Nature Conservation Act (Nature Diversity Act since 2009). Pasvik Nature Reserve is managed by the Office of the County Finnmark Governor. The two other areas are managed by the Øvre Pasvik National Park Board.

Øvre Pasvik National Park is one of 46 National Parks in Norway (39 on the main land and seven (7) on Svalbard[7]). The national park was first established in 1970. In 2003, it was extended from 66 km^2 to 119 km^2. National parks in Norway are established in order to protect large areas without major infrastructure development with characteristic nature

[7] http://www.miljodirektoratet.no/no/Tema/Verneomrader/Norges-nasjonalparker/

conditions or beautiful landscape. Ensuring the low-threshold outdoor life is often a part of the protection objectives. The largest remaining area of primeval pine forest in Norway is situated in Øvre Pasvik. The objectives of Øvre Pasvik National Park are to preserve a large, continuous forest area, which is essentially untouched in terms of technical intervention, preserving a forest ecosystem with a distinctive and varied biodiversity, ensuring the variety of nature types in the region and sites of cultural heritage.

Øvre Pasvik Landscape Protection Area was established in 2003 at the same time that Øvre Pasvik National Park was extended. The area is 54.2 km^2 and extends East of the national park, including the Pasvik river, and is characterized by large and varied bogs and wetlands, with many small forested islands. The plant life is protected. Landscape conservation areas in Norway are established to protect characteristic and beautiful natural or cultivated landscapes. Protection of the general landscape is important here and activities that can change the nature of the landscape are usually prohibited. In Øvre Pasvik, the Landscape Protection area has a rich biodiversity, especially linked to parts of pine forests and the bird life, and distinct geological formations associated with the last ice age.

Pasvik Nature Reserve was established in 1993. The area is 19.1 km^2 (4,6 km^2 is water area). The nature reserve is a twin reserve with the adjacent Russian, Pasvik Zapovednik. Nature reserves in Norway are established in order to protect certain characteristic nature types that are intact or nearly intact, and also areas that are important for educational and scientific surveys. The aims of the protection of Pasvik Nature Reserve are to: conserve a wetland area that is very important as a nesting and resting area for numerous water bird species, conserve parts of River Pasvik where the original river bed is intact and conserve a classical locality with a rich natural and cultural history of great scientific and educational value, as well as developing conservation cooperation with Russia. Pasvik Nature Reserve is also included in the Ramsar List of Wetlands of International Importance, since 1996[8].

Archaeological findings show that parts of Pasvik valley was inhabited already in the old Stone Age (10 000-4 500 BC). From the younger stone age (4500-1800 BC) there are traces of early settlers/ dwelling sites along the whole river. The sites found are mostly dwelling sites and hunting pits. The most recent archaeological surveys have been done in 2012-2014, LiDar scanning of hunting pits in the Pasvik valley. Especially between Noatun and Kjerringnesset there are numerous traces from younger stone age and later. Noatun is a protected cultural heritage site in private ownership. The homestead was built in the beginning of 1900s, including six buildings/ constructions (cowshed, residential building, storehouse, sauna, “peisestua” and windmill) and the Elsa stone. All six buildings and the Elsa stone are protected since 11.12.1990 by the Directorate for Cultural Heritage (Riksantikvaren). The management authority for the cultural heritage site Notaun is the Finnmark County Council Administration (Finnmark fylkeskommune).

Registrations in the Øvre Pasvik National Park show human use over a long period back to the Stone Age. The findings are mostly from seasonal activity (hunting, trapping, fishing, extraction of natural resources, etc.), and with far fewer traces from regular settlements.

Registration of CMTs (Culturally modified tree) in Øvre Pasvik National Park and Øvre Pasvik Landscape Protection Area was completed in 2017. There were found approximately 250 dead and living pine trees with traces of Sami bark takings, mainly for food purposes. The white pine inner bark was an important part of the everyday diet for the Skolt Sami

[8] https://www.ramsar.org/

people. A dendrochronology sample of one bark taking showed that the bark was harvested in the year of 1890 from a pine which germinated in 1685.

In Annex 2 you find more information on legislation and management plans.

Pasvik State Nature Reserve – Pasvik zapovednik in Russia

Pasvik Zapovednik was established in 1992, by two governmental decisions: Resolution of the Government of the Russian Federation No 493, from 16.07.1992 and Order of the Ministry of the Nature Resources No 202 from 08.09.1992. The whole territory of Pasvik Zapovednik is under the supervision of the Ministry of the Nature Resources of the Russian Federation. The total area is 147,27 km². This land was excluded from the territory of Pechenga Forestry (Act No 283 from 27.08.1993) and handed over for the lifelong and free use within the frames of Pasvik Zapovednik. In 2009 in framework of land management of Pasvik Zapovednik the total square of the reserve`s area has been detailed and now it is 146,87 km².

The main goals of the Pasvik Zapovednik are: protection of the native northern taiga pine forests in Europe and Russia, complex monitoring of the northern ecosystems, protecting the wetlands of international importance and high diversity of bird fauna, protection of the northern local population of the elk and protection of the cultural heritage of importance. The brown bear population, golden eagle and the waterfowls are included in complex monitoring since 2007 when the Trilateral park established. All tourism activities are prohibited in the reserve. The only part of Pasvik Zapovednik area which can be used as an ecological tourism route is on Varlam Island (Regulation act of Pasvik Zapovednik item No.6.4).

There are 35 cultural heritage objects of the Murmansk region located in this area, most of all are historical monuments after Second World War. A few of historical objects are concentrated along Russian side of the Pasvik river, i.e. in Pasvik Zapovednik area. Varlam Island in the southern part of the reserve is the open-air nature-historical museum. It keeps culture and history not only about WWII, but also about people lived there, agricultural activities in the past and archaeology artefacts.

In Annex 2 you find more information on national legislation and management plans.

IUCN categories of the protected areas in Pasvik-Inari trilateral park

In IUCN (International Union for Conservation of Nature) protected area management categories[9].

Vätsäri Wilderness Area is classified in category Ib[10] Wilderness area and Lake Inari Natura 2000 area does not have an IUCN category, as it is not established as a protected area. Øvre Pasvik National Park is classified in category II National Park[11]. Øvre Pasvik Landscape

[9] https://www.iucn.org/theme/protected-areas/about/protected-area-categories
[10] https://www.iucn.org/theme/protected-areas/about/protected-area-categories/category-ib-wilderness-area
[11] https://www.iucn.org/theme/protected-areas/about/protected-areas-categories/category-ii-national-park

Protection Area is classified in category V Protected Landscape/ Seascape[12] and Pasvik Nature Reserve (Norway) is classified in category Ia[13] nature reserve. Pasvik Zapovednik (Russia) is classified in category Ia: Strict nature reserve.

In Annex 3 you find additional information on the IUCN protected area categories.

Landscape and nature

The Lake Inari and Pasvik river and the surrounding wilderness are located in the northwest edge of the taiga, boreal forest zone, from where the subalpine mountain birch forest extends towards the north. Large marshes surround the river and the continuous pine forest fragmented by small bogs and lakes covers a large area from Lake Inari to Pasvik Zapovednik.

Climate, vegetation and geology

The climatic conditions of the northern Europe are harsh both for plants and for animals. The summer is short, and the winter lasts for months. The growing season lasts for 110–120 days. The difference between the average temperature of the coldest and warmest month is c. 28°C. The annual precipitation in the Pasvik river valley is c. 500 mm. Approximately half of the rain falls during the growing season.

Traces of the latest glacial period are evident. When the thick ice cover started to melt 10 000 years ago, a massive ice blockage on the upper course of the present Pasvik river blocked the melted water and created a vast basin. When the blockage melted, the water burst along the new course towards the Barents Sea. When the weight of the ice cover was eased, the earth's crust arose and the water connection to the sea was diminished to what it is today. The moving ice bulk carried rocks and stones with it. The moving ice cover rubbed off the rock material and uncovered the bedrock from some areas and formed gravel mounds in other places. Today one can see remnants of the deposits of the glacier streams as eskers, moraine mounds and large boulders.

Vegetation in the barren wilderness is modest due to the barren ground and harsh climatic conditions. In the vast pine forests surrounding the Pasvik river, Scots pine (*Pinus sylvestris*) dominates. Birch (*Betula pubescens*) is the most common deciduous tree, but in addition goat willow (*Salix caprea*), aspen (*Populus tremula*) and rowan (*Sorbus aucuparia*) grow in the forest. In the core of the wilderness, the pine forest has developed without great impact from human activities. In addition, the Russian border district has been partly unreachable by people. Øvre Pasvik National Park is the largest old growth forest in Norway. Old, thick and short pines grow in the surroundings of the highland of Vätsäri. The birch forest of the Vätsäri highland never recovered from the defoliation caused by the outbreak of the autumnal moth (*Epirrita autumnata*) larvae in the 1960s and other areas were also partly damaged. Typical ground vegetation of the pine forest consists of coarse brushes. The closeness of the sea affects the flora especially in the northeast part of the area where the snow cover is thin, and

[12] https://www.iucn.org/theme/protected-areas/about/protected-areas-categories/category-v-protected-landscapeseascape

[13] http://faktaark.naturbase.no/?id=VV00000014 and https://www.iucn.org/theme/protected-areas/about/protected-areas-categories/category-ia-strict-nature-reserve

the temperatures are lower during the winter. Dwarf cornel (*Cornus suecica*), oak fern (*Gymnocarpium dryopteris*) and mosses are common.

Flora and fauna

The Pasvik-Inari area lies between vegetation zones where both eastern and southern influences affect the vegetation. Examples of the eastern influences are Siberian spruce (*Picea abies spp. obovata*), and red cotton grass (*Eriophorum russeolum*), which are less common elsewhere in Norway. Special vegetation grows on the shores of the springs and ponds and on the rims of the swamps. On the wetlands in the Pasvik river surroundings, one may find interesting sedge species like Lapland sedge (*Carex lapponica*) and weak sedge (*Carex laxa*). Orchids are typical wetland species. The most typical orchids on bogs are spring's early purple orchid (*Dactylorhiza maculata*) and the southern creeping lady's tresses (*Goodyera repens*).

The Pasvik river and the surrounding wetlands comprise an important habitat for several bird species. The rich bird fauna is concentrated on the wetlands near the Pasvik river. The core of the Pasvik Nature Reserve is Lake Höyhenjärvi (Fjærvann), the most untouched area of the Pasvik river. The ice melts early in the spring and the lake freezes late in the autumn. This is an important resting place for several migratory birds. Also nesting birds, such as ducks and waders, are abundant. Several eastern species nests in the forests, for example the Siberian tit (*Parus cinctus*), the Siberian jay (*Perisoreus infaustus*) and the waxwing (*Bombycilla garrulus*). The pine grosbeak (*Pinicola enucleator*), the brambling (*Fringilla montifringilla*) and the three-toed woodpecker (*Picoides tridactylus*) are also rather common. The most abundant grouses are capercaillie (*Tetrao urogallus*) and willow grouse (*Lagopus lagopus*). The abundance of many predators, such as the most typical bird of prey, the rough-legged buzzard (*Buteo lagopus*), depends on the abundance of voles. Vole stock varies periodically, and if the voles are few in number, the buzzards do not nest. Efforts are made in all three countries to find the nesting territories of the rare golden eagle (*Aquila chrysaetos*).

The fauna has changed over the years. Beaver (*Castor fiber*) was pursued as a valuable trade commodity and is therefore extinct today. Before the Second World War, wolf (*Canis lupus*) was common but today only some wandering individuals cross the area yearly. The elk population (*Alces alces*) has grown due to loggings. The brown bear (*Ursus arctos*) population is viable. The brown bear population in Pasvik-Inari area is part of a greater Russian and Finnish bear population. One third of Norwegian bears live in Pasvik and research and monitoring on the species is centralised in Øvre Pasvik. Wolverine (*Gulo gulo*) used to be abundant, but despite protection it is a rare visitor today and does not reproduce regularly in the area. A wolf or a lynx (*Lynx lynx*) is seldom seen. Most abundant predators are fox (*Vulpes vulpes*), stoat (*Mustela erminea*) and pine marten (*Martes martes*). Invasive species, as Mink (*Mustela vison*) familiarised in the Pasvik river surroundings and occasional visits of the more southern species racoon dog (*Nyctereutes procyonoides*) has been observed.

Reindeer (*Rangifer tarandus*) husbandry is one of the main sources of livelihood in the north. Approximately 6000 reindeer grazes in the forests of Vätsäri and Øvre Pasvik. The herds pasture on different areas depending on the season and availability of food. Fence prevents the reindeer from wandering across the national borders. The fence may also limit the distribution of other big animals but does not completely prevent crossing the border. In Pasvik Zapovednik, the reindeer are not allowed to graze. However, some individuals cross the

Norwegian-Russian border to eat the lichen, but they are banished back to Norway as fast as possible.

The catchment area

The catchment area of the Pasvik river is 18 344 km^2, 70% is in Finland, 25% in Russia and the last 5% in Norway. Most of the streams in Vätsäri flow into Lake Inari and end up in the Pasvik river. The distance from the headwaters of the River Ivalo, which flows into Lake Inari, to Bøkfjorden at the Barents Sea is 380 km. The Pasvik river is 147 km long, at an altitude of 119 meters. There are seven hydroelectric power stations built in the rapids of the Pasvik river after the second World War, five Russian and two Norwegian. 85% of electric energy produced by Russian HEPs exports to Finland and Norway (http://www.tgc1.ru). The harnessing of the rapids changes the character of the river to a slower flowing, and also has affected the fish communities and their possibility to migrate, genetic diversity and fish reproduction. In addition, the areas down streams of Nikel settlement is affected from wastewater and industrial emissions.

Fishing is practised both for living and for recreation. Today, the most important catch in Lake Inari is the whitefish (*Coregonus sp.*), although plenty of vendace (*Coregonus albula*) is also caught. The vendace became accidentally introduced in the lake and became so abundant that trawls were used to catch the fish also for a period commercially. The whitefish is caught also in the Pasvik river, where also pike (*Esox lucius*) and perch (*Perca fluviatilis*) are important catches. Brown trout (*Salmo trutta*) is a well-respected catch of the small streams.

Effects of industrialisation, water regulation and climate change

Both mining and smelting activity of the nickel ore from Pechenga in an industrial complex at the Kolosjoki river required great amounts of energy. Jäniskoski rapid was harnessed already in 1942. This first hydroelectric plant was bombed by the German troops withdrawing from Pechenga in 1944. New hydroelectric plants were built after the war and altogether seven plants have been built along the Pasvik river; five Russian and two Norwegian.

Regulation has brought several changes to the environment. The power stations and dams block fish migration routes, and therefore the local fish populations have been sustained between the stations. In addition, the river flows more slowly, which has caused changes in ice conditions and overgrowth in the shallowest areas. The fish living in rapidly flowing water, such as brown trout (*Salmo trutta*) and grayling (*Thymallus thymallus*) have suffered from the changes, while pike, perch and whitefish have benefited from it (Inari-Pasvik 1996). Climate change has affected the fish communities too, the water temperature in the Pasvik river has risen with c. 2°C the last 40 years and the Lake Inari ice cover is thinner, and the ice cover period is shorter (Ylikörkkö et. al. 2015).

In Lake Inari, the regulation changed the natural rhythm of the water level also of Pasvik river. Now the water level is highest during spring and autumn and is lower during the winter. The water level is also regulated to a low level when the ice starts to melt during the spring. In shallow waters, the ice stuck to the bottom destroys vegetation and harms fauna, for example the reproduction of those fish that spawn in the autumn. Due to the regulation the highest

water level is half a meter higher than naturally (Puro & Maunuvaara 1997). The fish in Lake Inari were affected by the regulation so strongly that new species were planted in the lake. Such planted species were lake trout (*Salvelinus namaycush*), muksun (*Coregonus muksun*) and vendace (*Coregonus albula*) (Puro & Maunuvaara 1997). Sudden water level changes in both Lake Inari and along the Pavik river effect shore nesting birds, if the nests are drowned under water.

The emissions from the smelting industry have caused problems for the aquatic and terrestrial environments, for example acidification and elevated levels of heavy metals. In Russia, the environmental effects have been massive around the industrial complexes. When the winds blow from the east, the smelter emissions also effect the neighbouring countries, especially Norway, with Svanvik and Jarfjord area. Although the emissions are now lower than in the 1980s, the measured SO_2 concentrations in the Nikel area are still five times the total SO_2 emission of whole Norway (Stebel et. al. 2007). The heavy metal concentrations in Svanvik are significantly higher than those in the southern part of Norway and Russia.

Cultural heritage – inhabitants and sources of livelihoods

Inhabitants

Since prehistoric times, the Pasvik river valley and Lake Inari area has been the meeting place of different cultures. Through the centuries, a multi-cultural population has formed in the area. The Skolt Sámi and Inari Sámi are the indigenous people of the Pasvik river and Lake Inari. Before the Middle Ages, Finnish, Norwegian and Russian traders had vivid contacts with the Sámi population living in the area. At first, the traders had also a right to collect taxes from Sámi people, but eventually taxation was totally organised by states of Sweden-Finland, Denmark-Norway and Russia. From the 17th century onwards, the laws and acts were made in each country to promote the spreading of peasant settlement northward. Also, the immigration of Finns to the Norwegian Pasvik valley and Varangerfjord area took place between 1850-1870. Inari Sámi have lived in one state and within one municipality surrounding Lake Inari, throughout the historic era. Other Sámi groups and Finns have settled in the Inari region later on. According to historic and remembered information as well as place names, the original living area of Inari Sámi was once more extensive. The traditional living area of Skolt Sámi in the Kola Peninsula has extended from Neiden to Pechenga and to Tuuloma Lapland. The setting of boundaries between three empires has many times brought difficulties to the Sámi way of life. An enormous change for Skolt Sámi was caused after the Second World War, when Finland lost the area of Pechenga. As a result, Skolt Sámi lost their native lands in Pechenga, and they were resettled in the villages of Sevettijärvi and Nellim with the help of the Finnish Government in 1949. Skolt Sámi are Orthodox in religion. Most Skolt Sámi live in the so-called Skolt Sámi area, which is situated in the eastern parts of the municipality of Inari and to the south, south-east and north-east of Lake Inari. In Russia, most of them have been colonised by the state in the area of Lovozero. In Norway, Skolt Sámi live around Neiden and Pasvik, but most of them are blended into the majority population.

Northern Sámi – also called as the reindeer or fell Sámi – have lived a nomadic life, migrating along with the reindeer herds. Reindeer economy spread to Lapland in the 17th century. The reindeer Sámi of Varanger area had their winter pastures in the surroundings of Lake Inari. In 1852, the closing of the border between Norway and Finland caused dramatic changes to the migrant way of life. Since the 1860s, many reindeer Sámi moved to the Finnish side of the border with their herds and gradually multiplied the amount of reindeer in Utsjoki and Inari.

At present Inari Sámi, Skolt Sámi and also Northern Sámi are living in four different countries: Finland, Norway, Sweden and Russia. Sámi have the status of indigenous people in Norway.

In Finland, the Sámi have a self-government body, the Sámi Parliament (Sámediggi) since 1996, the existence of which was certified by the Act of the Sámi Parliament (974/95). In Norway, there is also a Sámi Parliament (Sámediggi), established in 1989 by the Act of the Sámi Parliament based on Sámi rights.

In Pechenga district, Russia, are living about 38 thousand people (https://yadi.sk/i/_ATiXQ1IcPaJJ). Most people have job i.e. industrial companies, social and budget institutions, local entrepreneurs. Sami people live in Lovozero village in the central part of Kola Peninsula nowadays.

Sources of livelihoods

Hunting, fishing and gathering were the only means of survival during prehistoric times in harsh conditions. The life of hunter-gatherers followed the regular events of nature and moved after the game and good fishing places. Cultural features of these small societies have been impacted by the most dominant source of livelihood.

Reindeer husbandry and agriculture

Reindeer husbandry is a circumpolar culture element which has strongly influenced the native societies. The Sámi reindeer economy has developed during centuries since the Middle Ages. People have moved along with the herds, and the life of the reindeer has determined the yearly cycle. Despite the border lock beginning in the 19th century, the herds passed across the country borders until the 1950s, when the border fences were built. It influenced strongly the reindeer economy, and some areas were divided into summer and winter pastures.

In Finland, the reindeer herding is controlled by the Reindeer Herding Act (848/1990) and the reindeer owners' association is the highest governing body in reindeer economy. Vätsäri Wilderness Area is divided between four reindeer associations: Muddusjärvi. Näätämö, Paatsjoki and Vätsäri. In Norway, the Reindeer Management is the highest governing body in reindeer economy. In the Norwegian part of Pasvik, one reindeer grazing district remains: the Pasvik reindeer grazing district. In Russian side of Pasvik-Inari area, the reindeer economy vanished gradually following the Russian revolution. Reindeer were gathered to collective ownership, for which reason there are no reindeer on the Russian side of the Pasvik river valley anymore. Reindeer herding is not allowed in the protected areas in Russia, for example in Pasvik Zapovednik because of national law protects the vegetation cover and wild nature without domestic animal impacts. Reindeer herding is developing in Rybachy Peninsula with a support of Pechenga administration last years.

On the Norwegian coast, sheep, cows and goats were known already in the Middle Ages when the permanent Norwegian settlements had spread to the fjords and islands. In the inland areas of Russia and Finland, animal husbandry and agriculture spread northwards along the Finnish settlement in the 17th century. Nowadays, the agriculture in Russia and Finland has minor importance. In Finland, mostly hay fields are made for the reindeer. In Norway, there are active farms left in Pasvik. There are no farms on the Russian side of the river now, only a few local kitchen-gardens in Nikel, Rayakoski and Borisoglebsky settlements. Most of them are close to Nikel.

Timber and the forest industry

Forests of the Pasvik-Inari area were harvested already in the 17th century, when the Norwegian Arctic Sea coast needed wood for firewood and for building boats and houses. In spite of the fact, that Metsähallitus was established in 1859 to administer and manage the state-owned forests, there were wild loggings in Vätsäri Wilderness Area in the 19th century. The situation did not settle down until 1913. During the 19th century, the sawmill industry spread rapidly from the south towards the intact raw material sources of the north. In Russia, sawmills were erected at first along the Arctic Sea coast and, later, in Finland. In the Government of Archangel, there were 8 saw mills in 1861, and by 1900 the number of sawmills was increased to 34. The opening of the A/S Sydvaranger iron mine in Kirkenes intensified sawmill and logging activity in the area in the beginning of the 1900s. In Finland, massive logging started in the 1920s when Metsähallitus sold 2 million logs to a Norwegian-English company, Atif. It delivered the timber to the sawmill of A/S Pasvik in Jakobsnes on the Pasvik river. The loggings and timber floating employed many people in the 1920s and 1930s. In the early 1940s, German and Austrian soldiers cut down forests in order to get firewood around Pechenga. Also building of the Nikel smelter and mine on the Kolosjoki river and erecting of the Jäniskoski power station with its rationing dam needed raw materials.

The German exploitation of firewood brought about large clear-cuts in the Norwegian parts of the Pasvik valley. Timber was floated for the last time from Lake Inari along the Pasvik river in the summer of 1945. Nowadays, the forest cuttings are possible only on the commercial forest area of Metsähallitus and on the private land in Vätsäri Wilderness Area. The cuttings are defined in the natural resource plan. No cuttings are planned in Vätsäri (Sihvo et al. 2006). In the Norwegian part of Pasvik, as well as in Russian side of the river, active forestry is allowed only outside the protected areas.

Mines, foundries and hydroelectric power stations

The establishment of an iron mine in Kirkenes in the beginning of the 20th century gave an incentive for industrialisation. The Kolosjoki river smelter in Pechenga was opened at the beginning of the 1940s. As a result of industrialisation, the Pasvik river was harnessed to produce electricity and extensive areas of forests were clear-cut on the shores of the river and in the southern part of the Vätsäri Wilderness Area from the beginning of the 20th century until the Second World War. After the Second World War, there was a standstill due to the Cold War. In spite of that Finland, Norway and Russia made an agreement in 1959 about the regulation of Lake Inari and the Pasvik river which is valid still today. Seven hydroelectric power stations have been constructed on the river. Power stations and industrial production had positive effects on the local economy and daily life by ensuring delivery of electricity and employing local inhabitants. On the other hand, damming caused loss of territory along the river banks. Many people had to leave their houses, and archaeologists had to evacuate also one Skolt Sámi cemetery. Subsequent, studies have indicated that regulation has had negative effects on such species which need strong flowing water (fish, birds etc.). In Lake Inari, the regulation has also caused erosion of the shores, reduction in the propagation of lake-bottom animals and decline in the natural fish populations.

Present situation

Nowadays, the sources of livelihood in Pasvik-Inari-Pechenga area vary a lot. Many people earn their living from different kinds of service trades, and many of these trades relate to tourism. As there are many reindeer herders and some farmers in the area, the extractive industry also employs local inhabitants. The number of construction sites varies from place to place, and skilful construction workers are wanted in all countries. On the Finnish side, the

electric, water and gas power supply and industry are of minor importance, but on the Norwegian and Russian side, they employ a large amount of the population.

Access to border zones

The **Norwegian-Russian** border may only be crossed at the Storskog-Borisoglebskiy Border Checkpoint. Permission for crossing the border in any another location must be specially applied for from the both countries border commissionaires. The **Norwegian-Finnish** border may be crossed on foot anywhere, but due to Norwegian custom regulations no motorised vehicles may cross the border other than at the checkpoints. The closest checkpoint is Näätämö-Neiden. The **Finnish-Russian border zone** is restricted. A special permit is needed from the border office to enter the area. The Virtaniemi border station is not open for regular border crossing. The closest Russian-Finnish border checkpoint is located in Raja-Jooseppi-Lotta.

Surveillance of the border between Norway and Russia is carried out on both sides by military border units. Both countries border units are under instructions to ensure that the **Border Agreement**, 29 December 1949, is obeyed. The Norwegian-Russian border is marked by border posts in pairs opposite each other. Where the border passes overland, the posts are standing 4 m apart, and the borderline is midway between the posts. Where the border is formed by rivers, the posts stand on the banks of the rivers and the borderline follows as a general rule the deepest channel. Boats or vehicles to be used on border rivers have to be registered with the Norwegian Border Commissioner in Norway or the State Inspection of Small Size vessels (in Russia). Registration plates must be fitted on the vessel boat. The vessels may only be used in border rivers during the hours of daylight. In the narrow parts of the Pasvik river, a boat is entitled to follow the main course without hindrance (even though the borderline does not follow it), on condition it is only passing through the Russian part of the river. All boats or vessels must have official number and state flags.

The Schengen Agreement was signed in 1985 in Schengen, Luxembourg. The agreement refers to, among other things, abolishing passport control between the borders of certain European countries. In 2001 Norway and Finland became members of this agreement. The borders between the Schengen states may normally be crossed anytime, anywhere without person control. As a consequence of entering the Schengen agreement, Norway also became obliged to sharpen the guarding and security of the border. Both the police and the military defence have thus received extra resources in order to take care of Norway's obligation. This has led to the construction of several border surveillance cabins and docks for patrolling boats, inside Pasvik Nature Reserve and Øvre Pasvik Landscape Protection Area. Also, a number of trails for military border patrolling 4WD motorcycles have been established in Øvre Pasvik Landscape Protection Area.

The border guard regime zone in Pasvik Zapovednik and surroundings was expanded in 2007. Pasvik Zapovednik and the surroundings are situated inside the border protection zone (Order of Federal Security Service (FSS) director No 452, from 28.09.2006, consummated from 01.01.2007). This means that one must obtain a permit from the Border Guard Office to enter the area. Rules for Russian and foreign visitors are listed in Order № 455 FSS, 07.08.2017, came into operation 01.01.2018 (http://www.consultant.ru/).

The presence of Russian and foreign researchers and their activities in the Pasvik Zapovednik territory and the surroundings are to be agreed with the Russian Border Commissioner. Access is to be provided by the border guards in accordance with established procedure and permissions issued by the management of the reserve. Delegations and specialists need to cross the border at the Storskog-Borisoglebskiy checkpoint. Border guards are to accompany the personnel of the reserve. Preparing the border permit for visit in Pasvik Zapovednik takes some time. All information needed (passport and visa data) must be sent to Pasvik Zapovednik administration in advance.

Primary fields of cooperation

Nature protection and management cooperation

Since 1991, annual trilateral meetings have been conducted on nature management and nature protection in the Pasvik-Inari region, between the management authorities and municipalities in the three countries. Through joint EU projects the last 10 years the cooperation has deepened and intensified. With the work towards the EUROPARC Transboundary Parks Certificate the quality and joint structure also improved. In figure 3 the structure (Annual cycle) of the trilateral park cooperation is highlighted, and the guiding rules for cooperation are listed in Annex 4. The trilateral cooperation agreement was signed in 2008. The cooperation is also part of the Norwegian-Russian Environmental Commission and Barents cooperation.

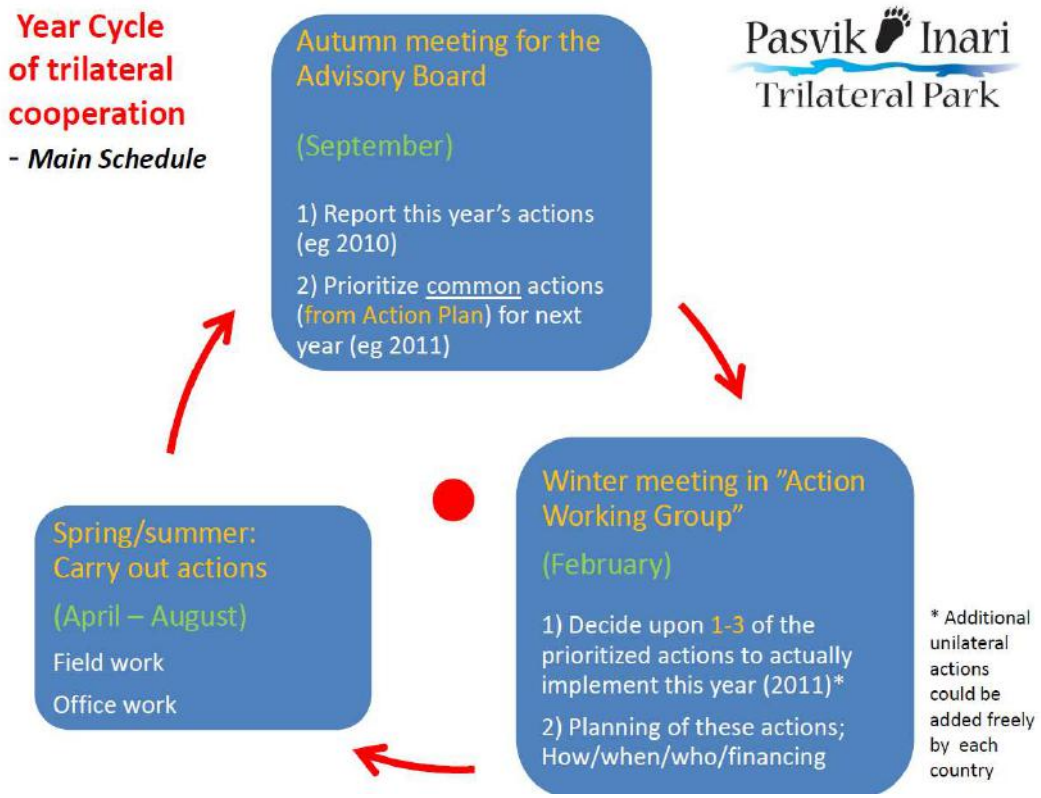

Fig. 3 Annual cycle

Nature monitoring and research activities

Cooperation in nature monitoring has long traditions in Pasvik-Inari area. Several joint monitoring projects have been conducted. During the recent years the monitoring work intensified, and harmonised monitoring systems were tested for several species/groups. In addition, information has been exchanged between the partners about past and present research and monitoring activities.

Fauna research and monitoring on the Norwegian side of the Pasvik river and Pasvik Zapovednik has also a long history. Mammalian studies focusing on brown bear, elk, muskrat and small mammals (mice, voles and shrews) have persisted since the late 1980s (Wikan et al., 1994; Wikan, 2000a, c; Aspholm et al., 2006; Wikan & Aspholm, 2006; Wikan, 2000b, Wikan et al., 2007). **Harmonised trilateral brown bear** (*Ursus arctos*) **monitoring,** using non-invasive technology (hair-snares)[14] has been going on since 2007, and is repeated every fourth year (Smith et al., 2007, Kopatz et al., 2011, 2012; Schregel, 2012; Aarnes et al. 2015; Ogurtsov et al. 2017; Aspholm et al., 2017).

Annual water bird registration has been ongoing since 1996 (Günther, 2006a). Since 2015/ 2016 annual harmonised **bird ringing** has been implemented in the areas (Report, 2015, 2016, 2017). **Golden eagle** (*Aquila chrysaetos*), is annually monitored in Finland (methods described in Kriterier, 2004), system also includes the search for new territories. In Norway the Golden eagle is part of national monitoring system. For more information see, old Action plan 2008-2018 (p. 49-50). Golden Eagle in Russian side has been monitored according Scandinavian approach (Kriterier, 2004) and within Russian methods (Карякин, 2004).

Research and monitoring of the **freshwater pearl mussel** in specific tributaries of the Pasvik river, have been carried out since 1997-1998. The species is included in the national monitoring program for endangered species in Norway (Larsen, 2005a, 2005b) and in Russia (Красная книга, 2014).

Phenology and growing season studies both from satellite images and in field studies have persisted since 1990 (Karlsen et al., 2008, 2012), in the transboundary area and for over 60 years on the Russian side in the Kola Peninsula (Shutova et al., 2004, 2006; Polikarpova et al., 2016, 2018) and 25-years in Pasvik Zapovednik (Makarova, Polikarpova 2012, 2015; Makarova et al., 2018). The terminology of phenological phases of plants has been unified within Russian and European approaches (Meier et al., 2009; Polikarpova, Makarova, 2016).

Environmental monitoring has been ongoing since early 1990s. The Pasvik programme is a good example of cross-border environmental cooperation[15]. Pasvik Zapovednik is implemented state national ecological monitoring programme since 1990th (Polikarpova, Makarova, 2012) and in cooperation with Kola MMC since 2006 (Kolskaya, 2012; Polikarpova et al., 2013).

Habitats, biotopes and landscape mappings. Valuable forest habitats and red listed fungi has been mapped in Norway in Øvre Pasvik area (Midteng, Gaarder, 2011; Midteng, 2017). Study on landscape mapping in Pasvik Nature reserve (Rakovskaya, Polikarpova, 2008)[16] and

[14] https://www.nibio.no/nyheter/how-to-catch-hair-from-a-bear

[15] www.pasvikmonitoring.org

[16] https://prosjekt.fylkesmannen.no/Documents/Pasvik%20-%20Inari/Dokument/Report_Landscape_mapping_PNR_Rakovskaya_Polikarpova_english_2009_kxj69.pdf

satellite mapping (Johansen, 2018). Surveys on N2000 directive's species and habitats are made regularly in Lake Inari area in Vätsäri.

Registration of CMTs (Culturally modified tree) in Øvre Pasvik National Park and Øvre Pasvik Landscape Protection Area was completed in 2017. There were found approximately 250 dead and living pine trees with traces of Sami bark takings, mainly for food purposes. The white pine inner bark was an important part of the everyday diet for the Skolt Sami people. A dendrochronology sample of one bark taking showed that the bark was harvested in the year of 1890 from a pine which germinated in 1685.

Landscape research and mapping of Russian Pasvik Zapovednik was done in 2002-2006 (Polikarpova, 2004, 2005a, б, 2006 a, б, 2009a, б, 2011; Rakovskaya, Polikarpova, 2007) as well as soil diversity research of the reserve (Polikarpova et al., 2012). Habitat typology studies (mires, forests, mountain-tundra and meadows) are developed last years (Moshnikov, Krutov, 2010; Neshataev et al., 2011; Kuznetsov et al., 2012, 2013, 2016). The research of dynamic of vegetation cover including lichens in Pasvik river valley using satellite images are also developed (Elsakov, Polikarpova, 2015; Elsakov et al., 2017). New lists of species of Pasvik Zapovednik and surroundings has been published regularly (Hans Schaanning, 2014; Khimich et al., 2015; Kravchenko et al., 2017; Borovichev, Boychuk, 2018; Urbanavichus, Fadeeva, 2018; Vertebrates, 2018).

Rare species are monitored on each side in the protected areas, a joint database is existing and updated regularly, scientific-popular information is published in brochure (Rare species, 2016). Also, partners cooperate with Red Book of Barents region (www.artsdatabanken.no), regional and national lists (Красная книга Мурманской области, 2014; Makarova, Polikarpova, 2014).

Environmental education and enlightenment

Pasvik Zapovednik runs the Rajakoski Nature (Ecological) School, they arrange events and annual youth camps since 2000. Øvre Pasvik National Park Board has annually since 2015 arranges the event "meet the researcher" for local schools and inhabitants, focusing on ringing of birds and the value of pristine pine forests. Stakeholders of the trilateral park, NIBIO in Norway runs the school network called "Phenology of the North Calotte[17]" and they also arrange annual teacher and school camps.

Visitor and nature centres is also run in each country. Sámi museum and Northern Lapland Nature Centre Siida[18] in Finland, Øvre Pasvik National Park Centre[19] in Norway and Pasvik Zapovednik visitor centre[20] in Russia.

Nature based tourism – sustainable nature tourism

The Pasvik-Inari trilateral park area has not been developed much for tourism. However, some nature tourism facilities exist in each country. Also, a number of nature tourism entrepreneurs operate in each country, many of them have contacts across the borders.

[17] https://www.miljolare.no/en/aktiviteter/pnc/?nmlpreflang=en

[18] http://www.siida.fi/contents?set_language=en

[19] http://www.bioforsk.no/ikbViewer/page/prosjekt/hovedtema?p_dimension_id=19512&p_menu_id=19528%20%20%20&p_sub_id=19513&p_dim2=19520

[20] https://prosjekt.fylkesmannen.no/Pasvik-Inari/News/New-visitors-center-in-Nikel/

The importance of the national parks, hiking areas and wilderness areas as a source for emotional and economic well-being is increasing. The areas are important for recreational use for local inhabitants and travellers who come from a distance. Both national and international tourism is increasing. This not only creates opportunities for economic development of the area but also creates new demands in terms of sustainability. Tourism is not a modern phenomenon, but due to the growing interest in travelling it has become one of the most important branches of industry in the world. Growing tourism industry operates on several levels which also makes the concept of tourism complex. In Annex 5 some terminology is explained. Principles of sustainable nature tourism in Pasvik-Inari area have been compiled in 2006-2008. The principles are overdue to be revised, and this issue is planned to be addressed in the nearest future, in projects. Visitors management is becoming more and more important area of work. The National Park Board has written their own visitors' strategy.

To learn more about the visitors who come to our area, a visitor survey was launched in spring 2018.

Nature tourism facilities

Vätsäri: The facilities for travellers are few in Vätsäri Wilderness Area. Several paths have been formed in the area by inhabitants, fishermen and hunters. Only one marked hiking path exist, the Piilola wilderness trail, between Øvre Pasvik National Park and Kessi in Finland

The boating routes of **Lake Inari** extend to the wilderness area as well as the canoeing route leading to Sevettijärvi village. During the winter, two snowmobile tracks pass the area. The routes cross at Lake Inari. Three open wilderness huts exist in the wilderness area, Piilola, Suolistaipale and Pisteri. In addition, the Rajapää wilderness hut is open during the summer season. There are five wilderness huts in Lake Inari Natura 2000 area: Petäjäsaari, Kahkusaari, Kärppäsaari, Kaikunuora and Jääsaari. The huts are maintained by Metsähallitus and firewood and waste disposal are provided. The travellers may overnight, but prolonged stay is not allowed.

There is a bird hide at the Pasvik river shore in **Pasvik Nature Reserve** at Gjøkbukta. One can also visit a real bear den at the site (marked path). **Øvre Pasvik National Park** is easily reached via the gravel road to Sortbrysttjern. At Sortbrysttjern there is a parking lot with an open shelter and fireplace, information boards and an outside lavatory. From here, there the Piilola Wilderness trail starts. Along the wilderness trail there is Ellenkoia, an open cabin available for overnight stays. The path continues to the Piilola gate between Norway and Finland. Near the border on Norwegian side there is another cabin available for overnight stays (the Piilola cabin). Another way to reach the National Park is by the gravel road to Grensefoss, which goes through **Øvre Pasvik landscape protection area**. At Grensefoss, there is also an open shelter and fireplace, information boards and an outside lavatory. The border mark, Treriksrøysa, at Muotkavaara is only five kilometres away along a marked trail established for border patrolling purposes, but available for everyone to hike on. In winter, a snowmobile track goes through the landscape protection area all the way to Treriksrøysa.

Pasvik Zapovednik is a territory of untouched nature, and most of the area is only used for scientific research. The infrastructure has not been developed for the tourism purposes. There is no waste disposal service, and everybody is responsible to collect his/her litter. An important cultural heritage site, **Varlam Island** (Vaarlamasaari) in the southern part of the area, is open to visitors. There one can visit the reconstructed house of the famous Norwegian

ornithologist Hans Schaanning, as well as the reconstructed observation tower. Although the core of Pasvik Zapovednik is for research purposes, the surrounding areas are easier to access. Settlement is concentrated in the villages. One of the offices of the nature reserve is situated in Rajakoski, where one of the hydroelectric plants of the Pasvik river is located.

Restrictions and opportunities

The restrictions and opportunities for private visitors and nature tourism operators vary in the protected areas in each country. In the following sections the main guidelines are described briefly. For more information you have to check the protected area regulations or contact the management authority in question.

People of all nationalities have the right to enjoy the Finnish and Norwegian countryside freely under the traditional Finnish and Norwegian legal concept known as **everyman's right**. However, together with these wide-ranging rights comes the responsibility to respect nature, other people, and property. Special regulations in different protected areas limit activities such as camping, hunting, the use of motor vehicles, and access to sensitive areas during the nesting season. Such restrictions are listed separately for each area. According to the everyman's rights people can walk, ski or bicycle freely; camp out temporarily; pick wild berries, mushrooms and flowers, as long as they are not protected species; boat, swim or bathe in inland waters and the sea; walk, ski, and fish on frozen lakes, rivers and the sea. For private persons, no licence is needed for using the hiking and skiing routes or using the campfire sites or open wilderness huts. Closed wilderness huts are charged for and need to be booked in advance. For hunting and fishing, a licence or permission is needed. Organised tours/ tour operators have to apply and agree with the management authority for the protected area in question to get access to cabins, trails and fireplaces.

Pasvik Zapovednik and the surroundings are situated inside the border protection zone. To visit Pasvik zapovednik you need a special permit. More information on this under "Access to border zones".

Communication, visibility and "marketing" plan

The trilateral working group has drafted a communication and visibility plan for the trilateral park. It highlights the main objectives, target groups, means and tools for visibility and communication in the trilateral park cooperation (Tervo et al 2018 advanced draft). This plan is an integral part of the action plan.

Part B

Future of the cooperation

Throughout the years of cooperation, mutual development ideas have been formed gradually. The joint Action plan is proven to be a good operational and strategic tool in developing new ideas, and also in reaching and implementing them. A SWOT analysis was carried out for the re-evaluation session at the end of 2017, and again revised together at the brainstorm meeting in April 2018. A SWOT analyse clarifies the strengths and weaknesses in the cooperation and defines also threats and weaknesses. From this it is then possible to identify the fields of work where actions are needed. Annex 1 shows the analyse. Answers were taken notice of when compiling the objectives and concrete actions.

The partners were unanimous in defining the **strengths** of the cooperation. The long traditions in cooperation and research, and the unique wilderness nature was the most important strengths. Transparency, familiar people, annual meetings and good knowledge of each other's operational cultures was also listed as strengths. **Weaknesses** were also recognised, border restrictions, administrator-focus and different legislations, need for external funding was listed among challenges to overcome. The **opportunities** for developing the cooperation are many. International agreements and memorandums, attracting funding through the good partnerships, develop nature-based activities and more involvement of local people are some of the opportunities listed. **Threats** listed, global political instability, too-fast growing tourism (without ready and adequate infrastructure), climate change and reduced local interest are among them.

Vision and mission

Vision

Pasvik-Inari Trilateral Park is a unique cooperation
for the benefit of nature and people

Mission

Through transboundary cooperation we cherish nature and raise awareness on biodiversity conservation and living cultural heritage. We promote sustainable development in the joint border area of Finland, Norway and Russia, as well as human health and wellbeing

The trilateral park vision and mission was jointly developed at the brainstorm meeting, spring 2018. The cross-border cooperation and the wilderness characteristics and the diverse natural, cultural and historical values are seen as main attractions of the area. Preserving these values and raising the profile of the area as a destination for travellers are the main focus areas in cooperation.

The vision reflects a desired end-state on a long term-basis, it shall inspire us to work towards the desired change and be a result of joint work. Our mission states how we work and how we will accomplice our vision. The vision and mission have been approved by all cooperation partners.

To achieve the level of aspiration described in the vision and mission statement, both main and specific objectives were developed. Concrete actions are listed under every specific objective. The actions described will be categorised and indicated as short term (ST = 1-3 years), mid-term (MT = 3-5 years) and long term (LT = >5 years) basis.

Main Objectives

1. Enhance transboundary cooperation and contacts at all levels.
2. Conserve natural and cultural values of the Pasvik-Inari region on a long-term basis.
3. Raise awareness and promote recognition of the area.
4. Contribute to the sustainable development and create positive local economic impact.
5. Facilitate for health and wellbeing of the people.

Specific Objectives and actions

Our fifteen (15) Specific objectives: are derivatives/ based from the five (5) main objectives. Specific objectives are more focused and detailed. They may also include target groups and time frames, and they may reflect strategies and development programmes. Good specific objectives are clear, compact and measurable.

Main objective 1: Enhance transboundary cooperation and contacts at all levels
Specific objective 1.1: *Transboundary cooperation is carried out in a regular and well-structured manner with a long-term perspective*
Action 1.1.1: Mutually agreed cooperation rules ("ToR" and trilateral agreement) guide the cooperation and the fields of responsibilities are acknowledged.
Action 1.1.2: Regular (annual) meetings are held for the Advisory Board, the trilateral working group can meet more often. Following the acknowledged "annual cycle".
Action 1.1.3: Prioritised actions from the joint action plan is annually prepared by the trilateral working group, and results are reported annually back to the Advisory Board.
Action 1.1.4: Updating of EUROPARC Transboundary Certificate on a regular basis and participating to EUROPARC's Annual Conference.
Action 1.1.5: List of contact persons is annually updated by the trilateral working group.
Specific objective 1.2: *Knowledge of the prevailing border formalities, as well as issues on nature and culture is regularly disseminated and exchanged*
Action 1.2.1: Regular meeting points are sought with border authorities, hydroelectric power plants, mining and smelting companies, in order to disseminate and exchange environmental information.
Action 1.2.2: Information on prevailing and new national legislation is informed about regularly.
Action 1.2.3: Exchange of relevant information concerning the partner organisations, nature and culture surveys and research results is done on an annual basis.
Specific objective 1.3: *Be active and open, by exchanging best practices, developing networks and new partnerships*
Action 1.3.1: Staff exchange, and mentor program is developed and implemented both in Pasvik-Inari cooperation and in TransParcNet - network.
Action 1.3.2: Develop and enhance the transboundary cooperation through networking with TransParkNet, EUROPARC's Nordic-Baltic Section, Green Belt, Barents cooperation, relevant NGOs and other initiatives.
Action 1.3.3: Active development of partnerships.
Action 1.3.4: Develop joint multi-use plans for needed themes e.g. water management issues, plan for sustainable tourism in Lake Inari N2000 area.

Main objective 2: Conserve natural and cultural values of the Pasvik-Inari region on a long-term basis
Specific objective 2.1: *Research and monitoring of natural and cultural heritage is carried out in order to improve the knowledge for both management and educational purposes*
Action 2.1.1: Harmonised monitoring (i.e. hair-snare) on brown bears is implemented every 4th year.
Action 2.1.2: Annual water bird registrations is implemented, evaluated and developed along Pasvik river.
Action 2.1.3: Survey of birds in Lake Inari area
Action 2.1.4: Harmonised bird ringing is developed and implemented.
Action 2.1.5: Information exchange on surveys of birds of prey and other relevant or rare species, i.e. Gyrfalcon, Peregrine falcon, Golden Eagle, Bean Goose.
Action 2.1.6: Freshwater Pearl Mussel and salmonid fish is surveys and monitoring. Results are exchanged.
Action 2.1.7: Ungulate species monitoring in Pasvik-Inari area (i.e. elk, roe deer, reindeer): population status, distribution and migration ways.
Action 2.1.8: Mapping of cultural heritage sites is implemented in Pasvik-Inari Trilateral Park according to national requirements and the results are exchange.
Action 2.1.9: Information exchange and pilot studies on harmonised mapping of culturally modified trees (CMTs) is applied for and implemented.
Action 2.1.10: Studies, documentation and collection of legends and stories from the area are made by relevant authorities and stakeholders.
Action 2.1.11: Monitoring, management and restoration of cultural heritage sites according to national requirements.
Action 2.1.12: Pilot a joint field documentation of remnants and traces of World War II. Evaluating the pedagogical potential of selected sites for dissemination and display.
Specific objective 2.2: *The protected areas are maintained as demanding hiking areas or areas reserved to research activities*
Action 2.2.1: Enhance and develop the protected areas network.
Action 2.2.2: Connectivity issues as part of protected area conservation are discussed and research and monitoring developed.
Action 2.2.3: Nature tourism activities, services (i.e. parking places etc.) and facilities are centralised in the villages and already existing settlements.
Action 2.2.4: Trails and other infrastructure are planned carefully in order to secure vulnerable nature sites and landscapes.
Action 2.2.5: Promote the establishment of Pasvik zapovednik as a Ramsar site and promote establishment of a transboundary Ramsar site between the twin reserves of Pasvik zapovednik (ru) and Pasvik Nature Reserve (no)

Specific objective 2.3: *Monitoring and research methods are harmonized between the countries*
Action 2.3.1: Harmonised visitors monitoring is developed and implemented.
Action 2.3.2: Habitat and biodiversity, mapping and monitoring is developed and implemented, including also new technologies (e.g. satellite images).
Action 2.3.3: Surveys and mapping of virgin forest, freshwaters and wetlands is harmonised and implemented, and results are exchanged.
Action 2.3.4: Develop cooperation on research and monitoring on climate change issues and effects.
Action 2.3.5: Develop a joint plan for ongoing monitoring activities and propose future needs and items for monitoring (i.e. birds of prey, insects, plants, fish etc.).
Action 2.3.6: Update existing lists on regular basis: species red list, publication list etc. (every 5th year)

Main objective 3: Raise awareness and promote recognition of the area
Specific objective 3.1: *Regularly disseminate information to the public and stakeholders about the transboundary cooperation*
Action 3.1.1: Joint web site is regularly updated[21] and the www.pasvik-inari.net is established as an archive site.
Action 3.1.2: Trilateral newsletter is developed and published once a year
Action 3.1.3: Social media, facilitating accessibility for all target groups in mind when disseminating information
Action 3.1.4: Promote the cooperation in publications, presentations, visitor centres[22] and at conferences on a regular basis.
Action 3.1.5: Arrange annually open meetings, events and festivals etc. for stakeholders and general public (bird watching trips, botany trips etc.).
Action 3.1.6: Joint Communication and visibility plan is checked regularly (every 5th year) and it forms an integral part of this action plan.
Action 3.1.7: Utilisation of existing digital services, interactive maps. i.e. make a joint map showing the existing facilities for visitors in the Trilateral Park area.
Specific objective 3.2: *Environmental enlightenment is made together with educational institutions and tailored for different target groups*
Action 3.2.1: A junior ranger program is benchmarked and developed.
Action 3.2.2: Cooperation with Phenology of the North Calotte and other initiatives.
Action 3.2.3: Active cooperation with local schools in all three countries, develop trilateral park "school kit".
Specific objective 3.3: *Brand of Pasvik-Inari Trilateral Park is well-known*
Action 3.3.1: EUROPARC Transboundary Certificate and TransParkNetwork.
Action 3.3.2: European Day of Parks – mark annually the day also as transboundary parks day (c. 24th May).
Action 3.3.3: Develop *the brand* of Pasvik-Inari trilateral park on the basis of vision and mission and through common branding materials (i.e. joint brochure, hand out products). Integrate the trilateral brand in national work

[21] https://prosjekt.fylkesmannen.no/Pasvik-Inari/

[22] Visitor centres: Siida Sami museum and Northern Lapland Nature Centre (FIN), Visitor Centre of Pasvik zapovednik and Pasvik Ecological school in Rajakoski (RUS), Visitor Centre Øvre Pasvik National Park Svanhovd (NOR)

Main objective 4: Contribute to the sustainable development and create positive local economic impact
Specific objective 4.1: *Visitor management is practiced in cooperation with tourism entrepreneurs and other stakeholders according to principles of sustainable nature tourism*
Action 4.1.1: Survey visitors' impact, develop and establish harmonised LAC system (Limit of Acceptable Change).
Action 4.1.2: Develop and implement harmonised visitors' surveys regularly (every 5th year)
Action 4.1.3: Review and update the "Principles of sustainable nature tourism in Pasvik-Inari area".
Specific objective 4.2: *Transboundary events and "soft" infrastructure between the countries are enhanced*
Action 4.2.1: Arrange 10-year anniversary hike along the Piilola wilderness trail (in 2019).
Action 4.2.2: Promote development of transboundary pilot trips and arrangement of special trips for i.e. bird watching, botany, history and culture etc.
Action 4.2.3: Promote development and arrangement of master classes inspired by the nature, culture and history of the area for handicrafts, traditional use and products, music and film events etc.
Specific objective 4.3: *The facilities for visitors are maintained and developed in a sustainable way in cooperation with local enterprises and other stakeholders*
Action 4.3.1: Make a joint plan for "soft" infrastructure development and branding issues.
Action 4.3.2: Maintain existing facilities, i.e. info boards, open cabins and sufficient duck boards along existing trails etc.
Action 4.3.3: Develop new canoe, bike (i.e. Iron Curtain Trail initiative) and hiking trail(s) (also transboundary once).
Action 4.3.4: Maintain and development of new visitor point(s), i.e. Varlam Island, national visitor centres and "Gjøken"

Main objective 5: Facilitate for health and wellbeing of the people
Specific objective 5.1: *Cooperation with 3rd sector[23] in order to encourage people to use and visit nature*
Action 5.1.1: Encourage associations and enterprises to create own events – help in disseminating information about the Trilateral Park.
Action 5.1.2: Develop cooperation, events and trips with kindergartens, schools and elderly homes etc.
Specific objective 5.2: *Highlight ecosystem services and equal opportunity as well as secure easy access to nature as a resource for health, wellbeing and identity*
Action 5.2.1: Evaluate (study) and describe the ecosystem services of the area.
Action 5.2.2: Participate in developing health and wellbeing products and services in cooperation with partners i.e. arrange "wild food" events.
Action 5.2.3: Monitor and communicate the perceived health and wellbeing benefits by visitors as a part of visitor surveys.
Specific objective 5.3: *Infrastructure is well planned and managed for traditional use, recreation and sustainable tourism activities*
Action 5.3.1: Infrastructure is limited to certain areas. Core areas of protected areas are kept as demanding hiking and infrastructure free areas. Infrastructure and outdoor activities are planned in sustainable way to suitable areas for all activities and user groups.
Action 5.3.2: Keep different user groups and accessibility in mind when planning and building needed infrastructure.
Action 5.3.3: Traditional land use forms are kept in mind in all planning activities.

[23] Third sector includes voluntary and community organisations, both registered charities and other organisations such as associations, self-help groups and community groups, social enterprises, mutual and co-operatives.

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Annex 1. SWOT analysis - Strengths, weaknesses, opportunities and threats listed and five most prioritized (all the rest listed below)

Strengths	**Weaknesses**
Long traditions in cooperation and research Unique wilderness, nature, diverse cultures and shared history Cooperation is based on open discussion and practical, common activities in the field of nature protection which are independent from global politics Operational management: annual meetings of workgroup and advisory board, joint action plan Acceptance of differences in operational cultures and operational environments, differences are turned to common good ---------- *- Good knowledge of the area* *- Diverse network of experts in natural and cultural heritage protection in the area* *- Mutual vision* *-Stable and devoted partner organisations* *- Sustainable development of the adjacent areas close to the protected areas is seen positive* *- Growing interest towards the Northern areas*	Border restrictions Administrator-focused approach, varying or low interest of participation of local groups External funding needed for implementation of many joint actions as the annual budgets of organisations are diminishing Different national legislation in nature protection areas is challenging Long traditions could lead to lesser amount of innovation ---------- *- Challenge to find multilingual interpreters* *- The general level of bureaucracy in state organisations is a common issue, and it needs to be acknowledged* *- Sudden changes of key personnel in the cooperating organisation* *- Low mutual interest to some activities among the partners*
Opportunities	**Threats**
International agreements and environmental commissions (Norwegian-Russian and Finnish-Russian), and special documents to develop border crossing, MoU and strategy for Green Belt of Fennoscandia, as well as Arctic and Barents cooperation Attracting external funding through good partnership, long-term cooperation and earlier achieved good results Growing activity in nature-based tourism Possibilities created by EU to promote cooperation in remote areas across the borders and to seek joint funding for projects Involvement of the local level in cooperation and recognizing the traditional livelihoods ---------- *- Growing interest of municipalities, local entrepreneurs and NGOs* *- Networking with the authorities, researchers, locals, NGOs* *- Involvement of the local level in cooperation and recognizing the traditional livelihoods* *- Visibility and recognition of the area and cooperation increase via certification* *- The certificate, TransParcNet and networking enable more efficient dissemination and also create opportunities for all our cooperation themes and have effect on development of local social-economic state* *- Open dissemination enables smoothening of conflicts between nature protection and other interests* *- Possible joint wilderness routes* *- New technology (DNA, satellite, internet-communication)* *- Extension of existing PA network in every country* *- Information exchange with Norwegian-Finnish transboundary water commission and Lake Inari water regulation commission*	Global political instability Too fast-growing tourism in areas with inadequate infrastructure (or low natural carrying capacity/ fragile biotopes etc.) and crowding effect Climate change Hydroelectric power dams (reconstructions and maintenance issues etc.) and flooding issues: water level fluctuations and water regulation regimes (both Lake Inari and Pasvik river) Reduced involvement of local people and stakeholders ---------- *- Disagreement with different interests in each country* *- General ignorance towards nature protection* *- Industrial pollution* *- Change in the PA area size or level of restriction 2* *- Introduced species* *- Domestic reindeer in Russian PA* *- Challenges with border patrolling along the Pasvik river in existing protected areas*

Annex 2. Legislation and management plans

Finnish legislation:
Act on Sámi Parliament (974/1995)
Act on Metsähallitus (1378/2004)
Antiquities Act (1963/295)
Degree on Metsähallitus (1380/2004)
Fishing Act (286/1982)
Hunting Act (615/1993)
Nature Conservation Act (1096/1996)
Off Road Traffic Act (1995/1710)
Reindeer Husbandry Act 848/1990
Skolt Act (253/1995)
Wilderness Act (62/1991)

Management plan for Vätsäri Wilderness area:

Norwegian legislation:
Biodiversity Act (2009-06-19-100)
Relics of Culture Act (1978-06-09-50)
Wildlife Act (1981-05-29-38)
Act of salmonid and inland fishes (1992-05-15-47)
Reindeer Husbandry Act (2007-06-15-40)
Forestry Act (2005-05-27-31)
Outdoor life Act (friluftsloven) (1957-06-28-16)
Act of motorized traffic in outlying lands and waterways (1977-06-10-82)
Pollution Act (1981-03-13-6)
Sami Act (1987-06-12-56)
The Finnmark Act (2005-06-17-85)
Water Resource Act (2000-11-24-82)
Planning and Construction Act (2008-06-27-71)
Nature Inspection Act (1996-06-21-38)
Pasvik Nature Reserve: https://lovdata.no/dokument/MV/forskrift/1993-10-15-989
Øvre Pasvik National Park: https://lovdata.no/dokument/MV/forskrift/2003-08-29-1104
Øvre Pasvik Landscape Protection Area: https://lovdata.no/dokument/MV/forskrift/2003-08-29-1105

Management plan for Pasvik nature Reserve[25].
Management plan for Øvre Pasvik National Park and Øvre Pasvik Landscape Protection Area:

Russian legislation:
Federal Law "About environmental protection" - ¹07-FL on 10.01.2002
Federal Law "About special protected areas" - ¹33-FL on 14.03.1995
- with changes: ¹196 – FL on 30.12.2001, ¹199-FL on 29.12.2004, ¹45-FL on 09.05.2005
Forest codex of Russian Federation ¹200-FL on 04.12.2006.
Order of FSS director No 452, from 28.09.2006, consummated from 01.01.2007
Order of Ministry Ecology and Nature Resources of Russian Federation – ¹202 on 08.09.1992
Regulation act of Pasvik Zapovednik item No.6.4. and Annex 8
Regulation of Murmansk region Administration - ¹238 on 29.04.1992
Regulation of Russian Federation Government - ¹493 on 16.07.1992
Order of FSS No 455, from 07.08.2017, consummated from 01.01.2018

[25] https://www.fylkesmannen.no/globalassets/dokument-fmfi/miljovern/rapportserie/2013_01-forvaltningsplan-pasvik-naturreservat.pdf

Annex 3. IUCN Protected Area Categories System

Ia Strict Nature Reserve: Category **Ia** are strictly protected areas set aside to protect biodiversity and also possibly geological/geomorphological features, where human visitation, use and impacts are strictly controlled and limited to ensure protection of the conservation values. Such protected areas can serve as indispensable reference areas for scientific research and monitoring.

Ib Wilderness Area: Category **Ib** protected areas are usually large unmodified or slightly modified areas, retaining their natural character and influence without permanent or significant human habitation, which are protected and managed so as to preserve their natural condition.

II National Park: Category **II** protected areas are large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible, spiritual, scientific, educational, recreational, and visitor opportunities.

III Natural Monument or Feature: Category **III** protected areas are set aside to protect a specific natural monument, which can be a landform, sea mount, submarine cavern, geological feature such as a cave or even a living feature such as an ancient grove. They are generally quite small protected areas and often have high visitor value.

IV Habitat/Species Management Area: Category **IV** protected areas aim to protect particular species or habitats and management reflects this priority. Many Category IV protected areas will need regular, active interventions to address the requirements of particular species or to maintain habitats, but this is not a requirement of the category.

V Protected Landscape/ Seascape: Category **V** Protected Landscape/ Seascape. A protected area where the interaction of people and nature over time has produced an area of distinct character with significant, ecological, biological, cultural and scenic value: and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values.

VI Protected area with sustainable use of natural resources: Category **VI** protected areas conserve ecosystems and habitats together with associated cultural values and traditional natural resource management systems. They are generally large, with most of the area in a natural condition, where a proportion is under sustainable natural resource management and where low-level non-industrial use of natural resources compatible with nature conservation is seen as one of the main aims of the area.

Source: https://www.iucn.org/theme/protected-areas/about/protected-area-categories

Annex 4. Guiding rules for cooperation

1. Cooperation is coordinated by an Advisory Board (Trilateral meeting)
2. The members of the Advisory Board are nominated by the participating organisations
3. The level of involvement in the cooperation is defined internally by each partner according to the current resources
4. The Advisory Board holds annual meetings
5. A chairperson and a secretary of the Advisory Board are chosen for one-year period and the place of the annual meeting is rotated between Russia, Finland and Norway every year
6. The hosting country keeps record of the meetings
7. The official working language is English, essential documents are translated to national languages
8. The Advisory Board is a decision-making body in international cooperation actions in area concerning issues mentioned in the Action Plan
9. The Advisory Board can give statements and recommendations regarding development and nature protection to the national authorities
10. Topical working groups are assigned by the Advisory Board when considered necessary
11. Chair and secretary of the working groups are chosen for two-year period and the hosting country is responsible for record keeping
12. The working groups report and make recommendations to the Advisory Board
13. Each country has one nominated person responsible for each action planned within the Trilateral cooperation

Source: Pasvik-Inari trilateral park Action plan 2008-2018[26].

[26] https://prosjekt.fylkesmannen.no/Documents/Pasvik%20-%20Inari/Dokument/Pasvik-Inari%20Action%20Plan%20EN%20print%20version%20180308.pdf

Annex 5. Nature tourism, sustainable nature tourism and terminology

In international terminology, nature tourism in its broader definition often contains all forms of tourism directed to the nature regardless of the effects on the environmental or cultural values. Nature tourism includes not only environmentally-friendly transportation such as hiking, bicycling or paddling, but also motorised means of transportation are increasingly favoured. Bird watching tours and adventure tours, such as climbing and diving, are examples of modern nature tourism. In a slightly narrower definition, nature tourism is tourism that involves recreation in natural surroundings. Nature tourism combines recreational use of nature and tourism (Ympäristöministeriö 2002.). The concept of nature tourism does not necessarily include ecological sustainability, but it often does. The concept of sustainable tourism has been derived from the sustainable development concept in which the present needs are fulfilled without endangering the opportunities for future generations. Tourism stands on a sustainable basis ecologically, economically and socially (Borg 1997).

The also the widely used term 'ecotourism' is generally seen as sustainable, small-scale tourism. The environmental, cultural and social awareness is emphasised. (Bangs 1992.) UNWTO/UNEP (2002) summarises ecotourism as: (1) All nature-based forms of tourism in which the main motivation of the tourists is the observation and appreciation of nature as well as the traditional cultures prevailing in natural areas. (2) It contains educational and interpretation features. (3) It is generally, but not exclusively organised for small groups by specialised and small, locally owned businesses. Foreign operators of varying sizes also organise, operate and/or market ecotourism tours, generally for small groups. (4) It minimises negative impacts upon the natural and socio-cultural environment. (5) It supports the protection of natural areas by generating economic benefits for host communities, organisations and authorities managing natural areas with conservation purposes, providing alternative employment and income opportunities for local communities and increasing awareness towards the conservation of natural and cultural assets, both among locals and tourists.

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