

Operational plan for IMMMP – Vovchynets Hill Ivano-Frankivsk (Ukraine)



Executive Committee of Ivano-Frankivsk City Council

Imprint

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Background

OP (operational plan) is a basis for multi-use management in urban forests. OP includes elements of tactical and operational plan. The framework for it is a strategic plan for integrated multi-use forest management for the whole area of urban forests of certain urban centres. The perimeter of OP is a rounded area within a wider area of urban forests. OP is the basis for the implementation of the activities and measures in urban forest for providing desired ecosystem services. Additional detailed operational plans (projects, sketches) for carrying out the activities and measures defined in OP can be elaborated.

Writing style, maps, appendix

The OP is a tool for communication with various stakeholders, therefore a relatively short and understanding text in all sections of the plan is desired. The main text should contain crucial information and decisions about integrated management in urban forests in the next planning period; simple tables and understandable maps are desired. All additional information (text, tables, maps) relevant for the understanding of the main text of OP should be included in the appendix.

Participation of stakeholders

In the planning process, a participation of stakeholders is foreseen. The participation is important part of the planning process, even more important than writing the text only. Therefore, a big effort should be made to include stakeholders in the planning process.

Availability of data, legal conditions

A plan is going to be used in various conditions with different availability of data related to the forests and the management in your study area. Main effort focuses on planning and decisions on management in the next period and not on collecting the data.

Planning system

The content of OP is in accordance with the strategic plan and legal documents relevant for the individual study area.

1 INTRODUCTION

1.1 The aim and purpose of OP

- The aim of OP
To restore “the current image” of UF and to make sure that urban forest (UF) area becomes place for socialization, relaxation, recreation, education, high quality experiencing of natural heritage and green-tourism for a diverse set of target groups.
- The purpose of the plan
OP is a basic document for the Ivano-Frankivsk city for forest management; it is the basis for the participation of the forestry administration, city administration and stakeholders in the management of the UPF.
- Link to the strategic part of integrated multi-use management plan
The OPUF correlates to the aim of the Strategic part of the Integrated Multifunctional Management Plan (IMMP) that is to identify demands towards urban and peri-urban forests (UPF) in Ivano-Frankivsk, potential conflicts between different forest users, to define strategic long-term management objectives in UPF, and to define priorities amongst management objectives and ecosystem service (ES). The strategic part also defines management guidelines that represent the basis for the definition of operational goals and measures. Moreover, OPUF matches the strategic priorities: preserve nature on the strategic area; ensure safety and coexisting of all users and ensure multifunctional use of area.

1.2 The design of the plan, obligations and validity of OP

- Basis for OP
Following legal documents were the bases for the framework for the planning process:
 - The Constitution of Ukraine,
 - The Forest Code of Ukraine
 - The Land Code of Ukraine
 - The relevant laws of Ukraine
 - The regulations on state forest protection
 - On the Nature Reserve Fund of Ukraine
 - The relevant provisions and guidelines for forestry
 - The local and regional orders
- Relation to forest management and other planning bases
OP is a basis for the preparation of spatial plans for the UPF area that will be used by the State Enterprise “Ivano-Frankivsk state forestry”.

- Obligation
 - OP is binding for SE “Ivano-Frankivsk state forestry”, Executive Committee of Ivano-Frankivsk City Council and Vovchynets village council.
 - OP is a mandatory basis for the Ivano-Frankivsk city administration, the planning of the use of funds, and for the acquisition of international or national projects that are in line with the content of the OP.
 - OP is the basis for the participation of the Ivano-Frankivsk State Regional Administration in the preparation of Forest Management Plans. Thus, OP directly and indirectly influences the work of the forestry administration, which is generally responsible for forest planning, management and monitoring.
 - Guidelines defined by OP are not directly binding for forest related business; however, the OP is an instrument for the communication with private owners about forest management, and a basis for projects/agreements. Some limitation for forest management can derive from the importance of forest for societal functions OR/AND from the legal regulations if the UPF area was declared by state or municipality as a forest category with a specific value/treatment.

- Preparation of the plan

Both Executive Committee of Ivano-Frankivsk City Council and SE “Ivano-Frankivsk state forestry” are responsible for preparing the plan with the active participation of Vovchynets village council. The main content is being prepared by the Executive Committee of Ivano-Frankivsk City Council (coordinated by the project team) based on the data received from forestry managers and village council representatives. However, plan will be finalized only after approval from SE “Ivano-Frankivsk Forestry” and Vovchynets village council. Communication between the forestry administration and the city administration is extremely important during the OP preparation.

- Time validity

The timeframe of the OPUF is 10 years (2020 – 2030). The plan will be checked and updated if needed each 2 years. Both Executive Committee of Ivano-Frankivsk City Council and SE “Ivano-Frankivsk Forestry” are responsible for the plan revision.

- Implementation and operational planning

OP is the basis for the implementation of the activities of the city administration in the UPF area. It includes guidelines, planned measures and facilities. OP cannot contain all the details for the implementation; therefore, activities that are defined in the OP can be elaborated during the period of validity of OP in detail by operational projects (even after the end of URBforDAN project).

- OP area

Strategic area in Ivano-Frankivsk has a surface of 580.39 ha and includes part of Kozakova Valley and Vovchynets Hill (see Figure 1). The State Enterprise “Ivano-Frankivsk Forestry” manages the area.

Kozakova Valley is a landscape reserve of national importance in Ukraine. It is located in the Tysmenytsia district of Ivano-Frankivsk region, north of Ivano-Frankivsk, and south of Ezupiul village. Surface of all area of Reserve is- 953 hectares. Created in 1982. The status is separate outcrops of limestone rocks and small karst caves. The forest occupies 100% of total area.

The Vovchynets Hill occupies an area of 20 hectares and is given to preserve the picturesque tract on the right bank of Bystrytsia river, dissected by deep beams, with the focus area of project (Figure 1. The peri-urban forest occupies 75.5% of the total area of the hill (15.1 hectares). The area is not protected, but the Hill is a natural monument of local importance.



Figure 1 - ortofoto and shape of the border of the focus area

2 THE IMPORTANCE OF URBAN FORESTS AND MAIN MANAGEMENT OBJECTIVES

2.1 Purpose of UPF

- Ecosystem services/ forest functions/ importance of UPF

The main ecosystem services that were found relevant with the 1st and the 2nd rank of importance are:

- Provisioning ES
 - Regulating ES
 - Supporting ES
 - Cultural ES
- Provisioning ES: Non-timber products. There are places for gathering of mushrooms, medicinal herbs collection on the focus area, but for personal use only. In this case, it's important rank of ES importance.
- Regulating ES: Local air quality. Forest protects settlements from pollution due to its proximity to major city road, village's roads and factories / companies producing products. Accordingly, rank is very important.
- Supporting ES: Nature protection / habitats for species. The vegetation covers about 300 species. Oak-beech virgin forest with rich undergrowth and grass cover grows on wet soils. In addition, rocky oak, as an admixture - a European larch (*Larix decidua*), elm tree (*Ulmus glabra*) grow there. Among the herbs, several species are listed in the Red Book of Ukraine: snowdrop (*Galanthus nivalis*), terrestrial orchid (*Neottia ovata*), and crocus (*Crocus sativus*). As for animal world, there are roe deer (*Capreolus capreolus*), boar (*Sus scrofa*), forest marten (European pine marten), gray hare (*Lepus europaeus*), badger (*Meles meles*), least weasel (*Mustela nivalis*), etc. Such rich flora and fauna means very important rank for the area.
- Cultural ES: Recreation and tourism. Multiple use of trails (cycling, walking, horse riding, skiing, ATVs riding, motorcycling), panoramic trails, tourist routes to the Landscape Reserve are common for the focus area. The shown biggest cycling route has the length of nearly 25 km and can be one of tourist attraction due to its significant sightseeing points, historical and cultural values (there some nice legends and mysteries stories that can be interesting for the potential tourists).
- Cultural ES: Cultural heritage. Landscape Reserve of the national value "Kozakova Valley" and the complex nature monument of local importance "Vovchynets Hill" have historical and cultural value.

- Target groups / users

The main groups:

- local population; different groups of visitors engaged in recreation
- tourists
- educational institutions
- forest owners

The City of Ivano-Frankivsk identified 18 stakeholder groups of users of the Vovchynets hill (see Figure 2).

However only the following ones were selected as Key Stakeholders based on the conducted survey¹ within URBforDAN project :

- Hikers
- Cyclists
- Downhill Cyclists
- Joggers
- Pet Walkers
- Collectors of non-timber forest resources
- Families with children

On workshops 2, more Key Stakeholders were identified:

- Artists (painters)
- Photographers

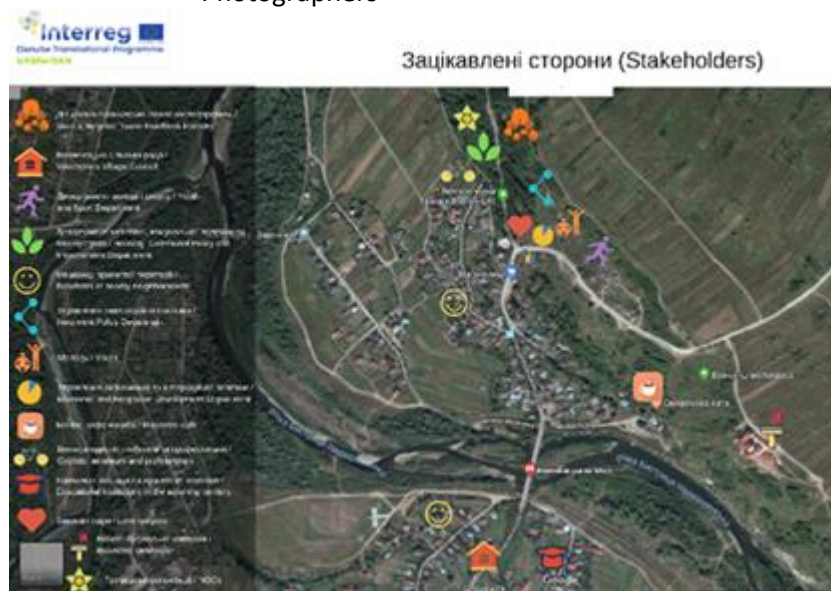


Figure 2- Stakeholders

¹ https://www.facebook.com/permalink.php?story_fbid=350514762371863&id=294529441303729

3 STATE OF FORESTS AND FOREST USE

3.1 State of forests and forest management

- Forest area
Strategic area in Ivano-Frankivsk has a surface of 580.39 ha and includes part of Kozakova Valley and Vovchynets Hill.
Kozakova Valley - the forest occupies 100% of total area.
The Vovchynets Hill occupies an area of 20 hectares and is the focus area of project. The peri-urban forest occupies 75.5% of the total area of the hill (15.1 hectares).
 - Ownership of forests
The State Enterprise “Ivano-Frankivsk Forestry” manages the area. 100% public – state property.
 - Forests, site conditions, forest types, stand types
The forests of the State Enterprise «Ivano-Frankivsk Forestry» mainly perform protective, ecological and recreational functions and have some operational significance. With an average annual growth per 1 ha of forest covered area of 3.8 m³, the size of forest use in the whole area is 34-35 thousand m³, which is about 40 percent of annual growth. The peri-urban forest occupies 75.5% of the total area of the Vovchynets Hill (15.1 hectares).
The average age of forest plantations in the forestry is 59 years, the average stock of wood per 1 ha of forested area is 197 m³, the average annual growth is -3.8 m³/ha, The average fullness is 0.72, and the average bonus is 1.8.
The estimated logging of the main use is 20 thousand m³, including the stud farm - 5.47 thousand m³, hardwood - 10.5 thousand m³, softwood 4.03 thousand m³.
 - Forest operations
Forest on the focus area is used mainly for recreation of users. Forest operations includes planting trees, carrying out reforestation, carrying out forest health restoration measures, carting out erosion control; measures, fire hazard reduction measures.
 - Wood production
Not used, not allowed on the Reserve area
 - Forest accessibility
There are forests road and skidding trails but not in good condition. For more than 10 years, they were not improved.
 - Impacts, problems
Damage from human activities, destruction of limestone rocks, corrosion from rain
-

3.2 Visit to UPF and infrastructure

- Visit to forest

There is no statistic of number of the visitors of the area.

The structure of visitors:

- residents of adjoining area (settlements near the forests)
- cyclists
- families
- young couples

Mainly conflicts regarding the visit of the UPF are between downhill cyclists, extreme automobile racers and people living nearby the Hill. Extremals scary people and make them feel unsafe during their ridings. People living nearby the Vovchynets Hill mentioned that auto or moto riders are noisy; they polluted air and behave not appropriately.

- Already available infrastructure

- Accessibility

There is a bus stop in the entrance in the Vovchynets village. Buses go from city centre (route no.34).

One of the major city roads ends near the entrance to the Vovchynets Hill (Vovchynetska Street).

- length of routes

The shown biggest cycling route (see Figure 3) has the length of nearly 25 km and can be one of tourist attraction due to its significant sightseeing points, historical and cultural values (there some nice legends and mysteries stories that can be interesting for the potential tourists).

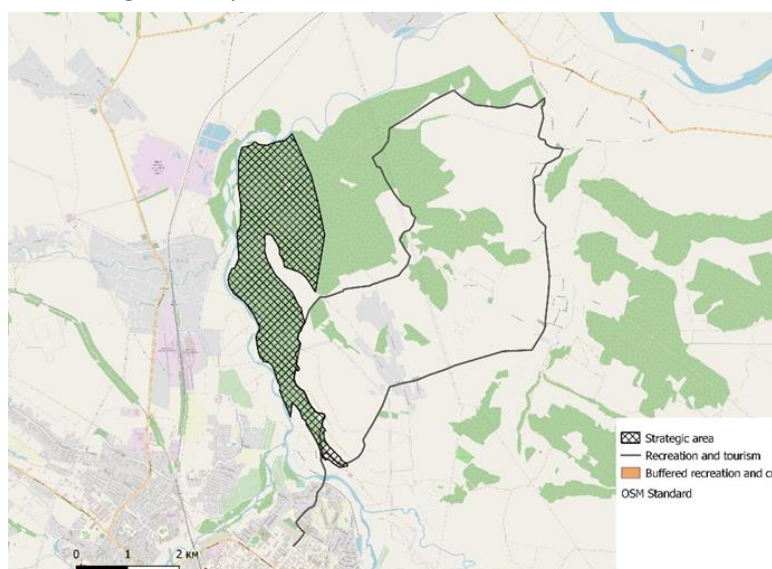


Figure 3 - Cycling route

- cycling polygons

Downhill cyclists made up to 5 special tracks in the forest.

- Fireplaces

There are no any special designed fireplaces in the area. Only places used by visitors as a fireplace.

- Viewpoints

A few panoramic spaces are located on the area but not equipped now.

- Benches

There are no benches on the area.

- springs / water

There is one spring on the area of Reserve but it is not suitable for the drinking as it is much polluted.

3.3 Important objects in UPF

- Nature conservation

Kozakova Valley is a landscape reserve of national importance in Ukraine.

The Vovchynets Hill is a natural monument of local importance.

- Cultural heritage

Landscape Reserve of the national value "Kozakova Valley" and the complex nature monument of local importance "Vovchynets Hill" have historical and cultural value.

On the focus area there are (see Figure 4):

1 rock

1 cross of the Ukrainian Insurgent Army

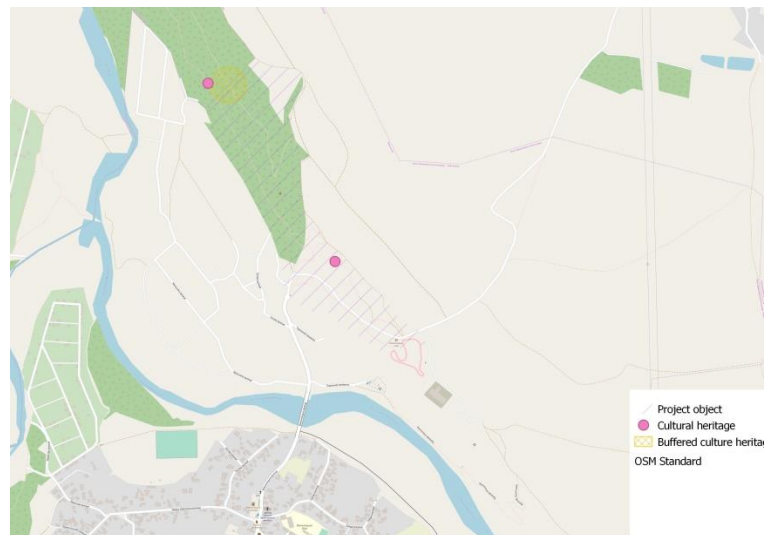


Figure 4 – Important objects on the focus area

As Strategic part of forest area includes protected areas, the recreational pressure goes on focus area. Moreover, because focus area located on the Vovchynets Hill, there is a great panoramic view that attracts visitors (Gypsum stones from Vovchynets Hill served as construction material for building the foundations of many houses of the city of Stanislavov (now Ivano-Frankivsk). This proves the importance of the Cultural ES in UPF.

3.4 Assessment of use, changes and influencing factors

- Damages, risks

The main damages to forests come from climate changes and impact of users.

The potential threats to forests are constructions; concerts; car racing and other measures that destroy nature and which involve a large number of people at one point.

- Issues of forest use

The significant issues of the forest use are:

- ✓ Absence of equipped places for rest
- ✓ Absence of proper road infrastructure
- ✓ Accumulation of MSW, low level of information about important events
- ✓ Arrival by cars
- ✓ Broken branches of trees
- ✓ Construction, bad road
- ✓ Difficulties with getting to the top of the hill
- ✓ Driving by car to the top
- ✓ Frequently cars travel and in warm weather raise smoking and dust that makes impossible to breathe.
- ✓ Indifference of people to the environment.
- ✓ Irresponsible attitude of visitors to the Vovchynets Hill
- ✓ Lack of well-equipped zones, areas for comfortable rest, toilets, shops, cafes, children's areas, sports grounds
- ✓ No cycling and pedestrian paths, lighting, no playground for children,
- ✓ Road erosion
- ✓ Lack of strategic plan for development and regulation, security in the territory (human). Protection of territory from illegal buildings, infrastructure.
- ✓ Territory degradation, ineffective use of the territory's potential
- ✓ There are no tracks, places for rest (benches, pavilions), observation areas
- ✓ There is no proper road infrastructure
- ✓ There is no proper safe entrance and drainage from the carriageway. There is no fencing on the side of the gorges. There is no organized collection of garbage (points with garbage bins and their removal).
- ✓ There is no recreational infrastructure, the territory should be zoned for recreation, scientific and economic activity
- ✓ There is no zoning of territory, there is no convenient pedestrian and bicycle infrastructure, lack of lighting, street furniture, urns and various kinds of attractions.

4 GUIDELINES FOR FOREST MANAGEMENT

4.1 Subordinated guidelines

- Forest management plans
The main goal of Forest management plan is area protection. It will not be used for harvesting, wood production in next 10 years.
- Spatial plans
Spatial plan foresees zoning of most popular activities on the area:
 - Cycling zone and routes
 - Kids playgrounds and education zone
 - Observation deck
 - Parking zone
 - Walking routes and recreational zones (picnics, toilets)
 - Sport zones (motor transport zone, horse riding etc.).Main Spatial development strategy objectives are the multifunctional use of area, coexisting and safety of all users, nature protection. The space has to be developed based on this objectives and human values (people-centred approach). Specifically, the area should become more accessible year by year for all especially people with disabilities, retired people.
- Strategic plan for UPF
Strategic part of the OPUF is planned for 10 years and based on current laws, regulations and regional/local programmes. As city borders will be wider regarding decentralization reform in Ukraine, urban forest will become more popular spot for recreational and its ES service will play more crucial role for settlement. Moreover, this means that protection nature measures should be strict and systematic. The main risks are increase of area load by visitors, interest of developers to build houses or commercial entities.

4.2 Fundamental/basic concepts

- Forest land, forest area
The peri-urban forest occupies 75.5% of the total area of the Vovchynets Hill (15.1 hectares) and won't be enlarged. The State Enterprise "Ivano-Frankivsk Forestry" will continue to maintain the forest in similar condition..
- Structure and forest composition
We plan to intensive only forest care. Care includes a set of agronomic and forestry measures aimed at improving the conditions of survival and growth of forest crops. This includes improving the quality of the soil, removing grass and unwanted woody vegetation, and enriching the soil with nutrients. Also we

will try to plant a range of decorative trees - red-leaves maples- on the observation deck areas AS focus area is highly used for recreation and is closed to the settlements – plan foresees only its maintain.

- Technology of wood production
- Nature conservation

Forestry does not product wood on the focus area.

The conservation and protection of forests is carried out through comprehensive measures aimed at protecting them from fires, illegal logging, damage and other influence, protection against pests and diseases.

The threat of forest fires is growing due to the increase in the number of visitors for the purpose of relaxation, kindling. Therefore, to effectively protect it from forest fires, active preventive work is carried out among the population and young people, and in case of fire or fire - extinguishing according to the developed and approved mobilization plans for their elimination. Systematic monitoring of their condition, timely detection of pests and diseases, implementation of prevention of their occurrence, their localization and elimination, ensures the protection of forests from pests and diseases.

Biological and forestry methods are used to control pests and diseases: sanitary felling, pruning care, deforestation and forest clearing, hanging of pheromone traps, protection and resettlement of ants, production and hanging of artificial nests.

- Areas with emphasized ES (or forest functions) in the UPF area

Additionally, four more ES services will be promoted within the project. Consequently, project activities includes improvement of focus area by installing equipment:

- o Classroom in nature with forest playground and nature campsite for children (Scientific / educational).
- o Equipment for parking and a viewing-point platform
- o Equipment for recreational zone for cycling community
- o Information and education plates for visitors with markings for walking paths and cycling trails
- o Tables with benches

- The use of forests

This peri-urban forest territory, also known as Vovchynets Hills, is the most attractive natural environment (heritage) for the weekend rest. It will attract more visitors of all ages. The visitors will use it for cycling, walking, spending family time, education. Also the area could be used for the purpose of bike competitions, developing new sport activities

- Infrastructure in the forest area

Focus area infrastructure is not developed right now. There is a bus stop in the entrance in the Vovchynets village. Buses go from city centre (route no.34). One of the major city roads ends near the entrance to the Vovchynets Hill (Vovchynetska Street).

A few panoramic spaces are located on the area but not equipped now It is just being maintained and preserved from the threats. Because of the lime stock ground – the road, trails are usually damaged quickly. In this term, forestry, village and city councils

have to find out new technologies or materials for appropriate cover. Other important issues are the need of properly arranged parking lots, toilets, info points, better entrance, marking of routes.

- Communication / Informing the public

Executive Committee of Ivano-Frankivsk City Council will organize a Public presentation of the final draft of the IMMP. Strategic and Operational parts will be presented not only to forest managers, but also to all interested public - it will be invited to comment final draft documents and deliver suggestions for their improvement. Public will be informed through: public events, Facebook post, media publications.

Executive Committee of Ivano-Frankivsk City Council will review the comments and will consider them in preparation of final versions of IMMP. Executive Committee of Ivano-Frankivsk City Council will monitor the changes and the implementation of activities in UPF together with State Forestry and Vovchynets Village council. Executive Committee of Ivano-Frankivsk City Council (Investment Policy Department) is responsible for informing the public.

- Cooperation between stakeholders

Cooperation has started from the project proposal preparation and continues now. Vovchynets village council initiated the project on road construction with observation decks and parking places. While designing the project, Executive Committee of Ivano-Frankivsk City Council offered the cooperation within joint project. At this moment Executive Committee of Ivano-Frankivsk City Council discuss the project idea with the SE "Ivano-Frankivsk Forestry" and received positive feedback. From that discussion, all events and activities (phase of ES assessment, elaborating of specific objectives for the IMMP, OPUF) were conducted through close and active participation of each institutions.

4.3 Guidelines for allocations with priority ES

- Allocations for priority ES

The main ecosystem services are (see Figure 5):

- Regulating ES
- Cultural ES

Regulating ES: Local air quality. Forest protects settlements from pollution due to its proximity to major city road, village's roads and factories / companies producing products.

Cultural ES: Recreation and tourism. Multiple use of trails (cycling, walking, horse riding, skiing, ATVs riding, motorcycling), panoramic trails, tourist routes are common for the focus area.

Cultural ES: Cultural heritage. The complex nature monument of local importance "Vovchynets Hill" has historical and cultural value.

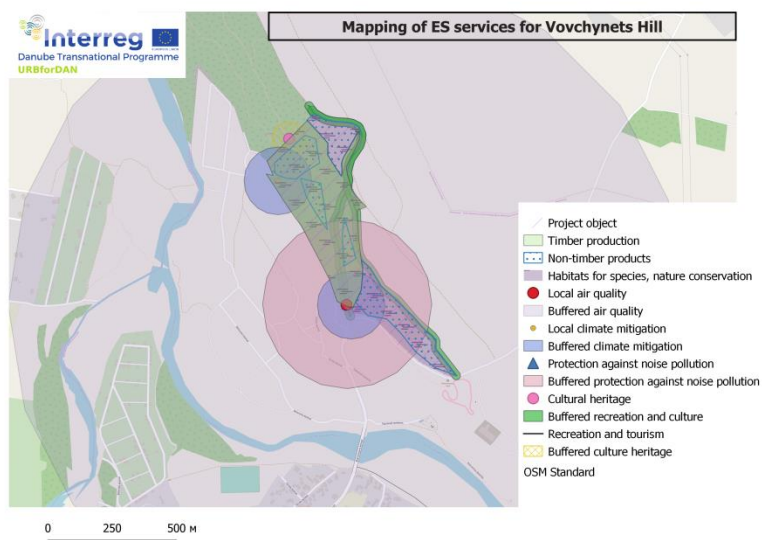


Figure 5 – ES services for the focus area

- Other multifunctional forests Forests provide a large range of other products, such as cork, resins, mushrooms, nuts, game or berries as well as recreational services, which are increasingly being valued on the market. Promoting new value chains for such products can be a powerful economic incentive for integrated forest management schemes, increasing forest multifunctionality, contributing to sustainable forest management and fostering rural development².
- Overlapping of allocations Focus area is small but still several ES service are ensured. The priority ES services (Non-timber products, Local air quality, Recreation and tourism, Scientific / educational and Cultural heritage) overlap with ES without high importance (Timber production, Local climate mitigation and Protection against noise pollution). Such a mix of ES service opens more opportunities for multifunctional area development.

² EIP-AGRI WORKSHOP NEW VALUE CHAINS FROM MULTIFUNCTIONAL FORESTS 10-11 NOV 2016

4.3.1 Allocations for priority ES

Table 1 - Allocations for priority ES

Ecosystem service (ES) – area (ha) and % of entire forest area	Individual objective/ES	Area (ha) and % of entire forest area	Specific guidelines for these areas (forest development, technology, infrastructure, other measures)
Provisioning ES	Non-timber products	15 ha (75.00%)	There are places for gathering mushrooms, medicinal herbs collection on the focus area, but for personal use only. In this case, it's important rank (2 rank) of ES importance. The basic infrastructure for this purpose should be provided (benches, tables, bins, paths). Guidelines: promoted the ES among users, but implemented monitoring and control system to avoid damages and users crowding on the protected spaces.
Regulating ES	Local air quality	10 ha (square of buffer zone)	Forest protects settlements from pollution due to its proximity to major city road, village's roads and factories/companies producing products. Accordingly, for rank is very important. Forest development and protection is essential for this purpose. Guidelines: auto driving control, arranging the parking spaces on the entrances, clear information boards with instructions how to behave in the forest area.
Cultural ES	Recreation and tourism	20 ha (100.00%)	Multiple use of trails (cycling, walking, horse riding, skiing, ATVs riding, motorcycling), panoramic trails, tourist routes. The biggest cycling route passes the focus area. The improvement of the Cultural ES proper infrastructure should be

			provided (road, trails, routes marking, benches, tables, bins, toilets) Guidelines: auto driving control, arranging the parking spaces on the entrances, clear information boards with instructions how to behave in the forest area, widely promotion of area.
	Scientific / educational	20 ha (100.00%)	The area is used for educational and scientific issues (researches/lessons made by local universities students, schools). The proper infrastructure should be provided (shelter, benches for open lessons). Guidelines: clear information boards with instructions how to behave in the forest area, promotion of area opportunities in the scientific / educational matters.
	Cultural heritage	20 ha (100.00%)	The complex natural monument of local importance "Vovchynets Hill" has historical and cultural value. The proper infrastructure should be provided (road, trails, routes marking, benches, parking space, tables, bins, toilets etc.) Guidelines: auto driving control, arranging the parking spaces on the entrances, clear information boards with instructions how to behave in the forest area; promotion of cultural heritage of the area, conduction of interesting events, developing routes.

4.3.2 Other multifunctional forests

Table 2 - Allocations for other ES

Ecosystem service (ES) – area (ha) and % of entire forest area	Individual objective/ES	Area (ha) and % of entire forest area	Specific guidelines for these areas (forest development, technology, infrastructure, other measures)
Provisioning ES	Timber production	15 ha (75.00%)	It is possible to harvest less than 5 m ³ per hectare in the focus area and is not permitted in the protected area, but nearly 10 years timber production or agricultural works were not carried out in the area. Area is just maintained and preserved. Thus, it is medium importance. Forest development and protection is essential for this purpose.
Regulating ES	Local climate mitigation	12 ha (square of buffer zone)	Forests protect settlements from wind, drying, frost. The rank is “3” as forest only partly protects the small settlements and it located near the areas not around them. Forest development and protection is essential for this purpose.
Regulating ES	Protection against noise pollution	8 ha (square of buffer zone)	Forest protects settlements from noise pollution due to its proximity to major city road, but near the forest, the road is not very crowded with cars. Accordingly, for rank is medium importance

4.4 Detailed forest zoning

- Zoning regarding the forest land use

For detailed allocations, specific regimes are defined (see Figure 5):

- intensive recreational use
- dispersed recreational use
- mountain biking trails/hiking trails, riding trails
- nature conservation area

forest classroom

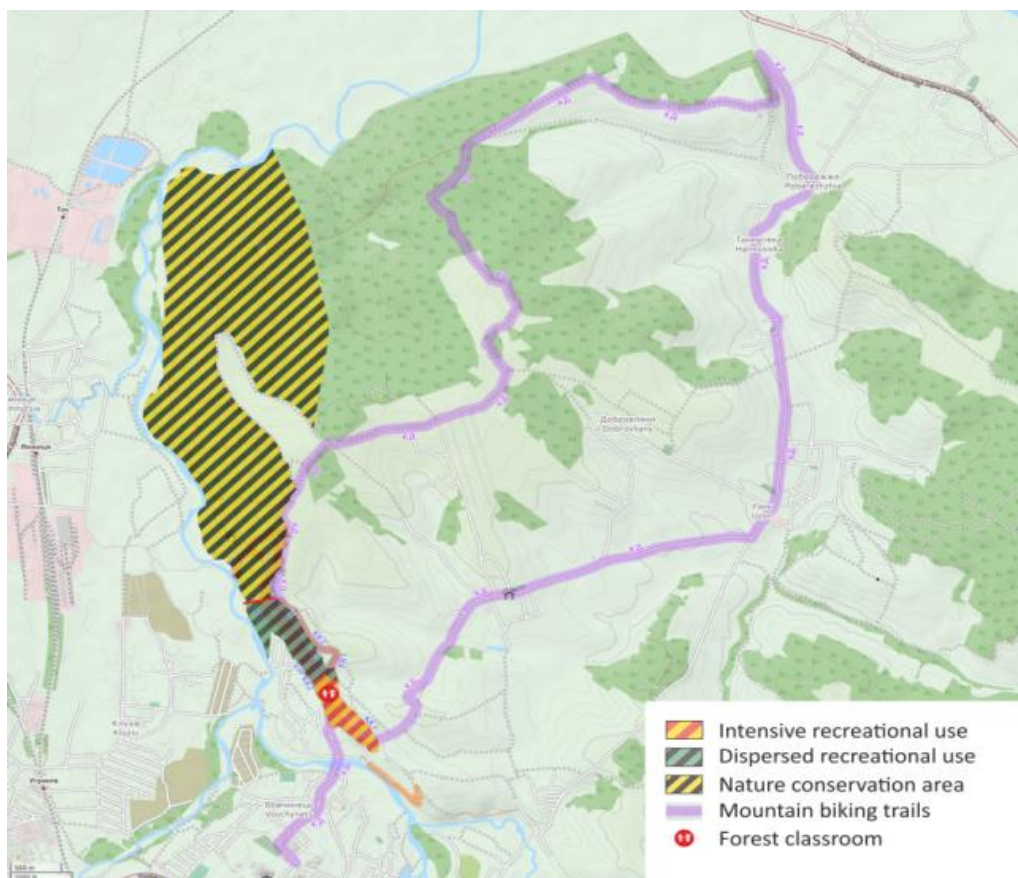


Figure 6 - Zoning regarding the forest land use of the strategic and forest areas

- Management regime

Table 3- Management regime

Zone	Importance	Surface (ha)	Specific guidelines
intensive recreational use	Medium	15	Intensive area maintaining, zoning
dispersed recreational use	High	30	Good area maintaining (cleaning, ensuring secure and safe, recreational infrastructure development) , zoning
mountain biking trail / hiking trails, riding trails	High		Good area maintaining, route marking and promoting
nature conservation area	High	484	Protection regarding UA laws and regulations
forest classroom	High	0.06	Good area maintaining, zoning, promoting

4.5 Activities

- silviculture and forest management
 - arrangement of entry points
 - recreational paths, cycling polygons
 - cycling space
 - points of interests (observation decks)
 - info points: marking, routing equipment
 - playgrounds
 - areas for kindergartens and forest schools
 - accessibility to UPF (accessibility with public transport, availability of parking places, road construction)
 - promotion and informing the users
-

4.5.1 A detailed plan for the silviculture and forest management

- Area *Silviculture and forest management*
- Condition / problems The area is just maintained and protected. No special forest treatment is being realized there. Silviculture is not developed in the area. Among problems – waste accumulation, use of cars, picnic fire damages.
- Target state The area is protected, used effectively, cleaned and users are well-informed on the behavior on the forest area. Forest management is improved. Silviculture is developed.
- Purpose Purpose is to reach all 7 criteria for good management³:
 - (i) Increasing Forest Cover
 - (ii) Conservation of Ecosystem Vitality & Biodiversity
 - (iii) Soil and Water Conservation
 - (iv) Enhancing Productivity
 - (v) Meeting the Basic Needs of Communities (through Eco-compatible activities)
 - (vi) Increasing Participatory Status.
 - (vii) Enhancing managerial sensitiveness
- Priority Very important priority that should be perform in the next 2 years
- Most important ES
 - Provisioning ES
 - Regulating ES
 - Cultural ES
- Possible activities
 - Rehabilitation of the degraded area
 - Regular analysis of Population estimation & behaviour
 - Educational and awareness events
 - Strengthened measures to protect and clear the territory
- Unwanted or prohibited activities Following activities are not allowed or are restricted:
 - Driving the car in the forest area

³ <http://www.fao.org/3/XII/0001-B1.htm>

- Motorbikes use on some of the zones
- Fireplaces
- Waste producing

- Silviculture measures
 - Reforestation
 - Cleaning
 - Thinning
 - Reforestation works are planned so that the stands with the best principal tree species would grow on the site with optimum costs within the shortest period of time in the new forest generation. In the process of reforestation the natural reforestation of different existing tree species and old crop trees, down timber and broad-leaved hardwood contributing to the biological diversity are tried to retain as much as possible. Reforestation works involve the mineralization of soil, i.e. soil scarification so that the seed would reach the soil and start to germinate within the sowing year.
- Measures for wood production
 - Wood production is not effective the area due to the closeness to the Protected Reserve. The objective of production is to produce a valuable timber assortment with optimum costs. Meanwhile the timber resources on the focus area are not considered as a valuable.
- Infrastructure measures
 - Forest improvement consists of the maintenance, renewal and reconstruction of roads and drainage systems.
- Costs
 - 50000.00 euro
- Financiers
 - State budget, SE “Ivano-Frankivsk Forestry”
- Coordinators
 - SE “Ivano-Frankivsk Forestry”
- Stakeholders
 - Executive Committee of Ivano-Frankivsk City Council;
Vovchynest Village Council
Ivano-Frankivsk City United Territorial Unit population
- Legal basis
 - The Forest Code of Ukraine
 - The Land Code of Ukraine
 - The relevant laws of Ukraine
 - The regulations on state forest protection
 - On the Nature Reserve Fund of Ukraine
 - The relevant provisions and guidelines for forestry

4.5.2 A detailed plan for the arrangement of entry points

- Area and map
 - Arrangement of entry points

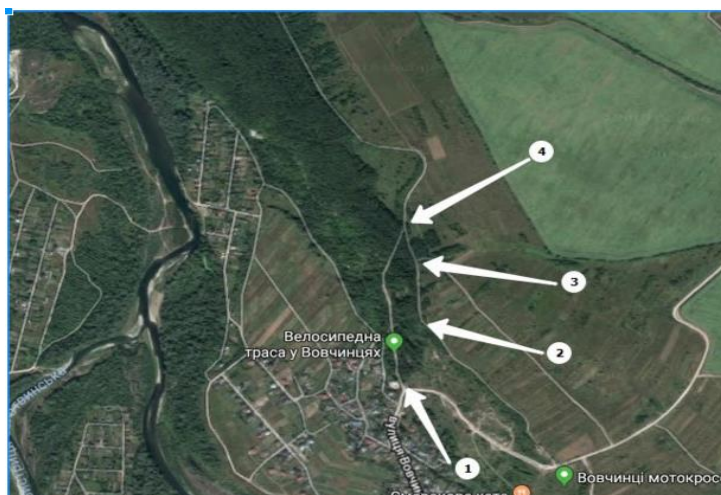


Figure 7 - Possible entries to the focus area

- Condition / problems

In this moment there are several entries to the focus area (see the Figure 7). But only one (no.1) has more accessibility options and is mostly used. One of the major city roads ends near the entrance to the Vovchynets Hill (Vovchynetska Street).

There is a bus stop in the entrance in the Vovchynets village. Buses go from city centre (route no.34).

In 10 years the arrangement of other entries can be revised due to the decentralisation process and urbanisation.

Condition – it's not well-arranged, there is no any parking space, bike parking lots, barriers. There are some informational boards about behaviour in the forest, waste collection containers. Problems – waste accumulation, cars are being parked in chaotic way. The wind blows debris and waste across the territory.

- Target state

Arranged entry with barrier on the bike route that does not allowed cars to drive there. Defined and constructed parking space. Information boards arranged and logistic is clear for the visitors. Waste collection site with the covering to protect from the wind is proper arranged. The waste transportation system is well –organized.

- Purpose

The purpose is to minimize any conflicts between users through the organised and controlled entry for the cars or other motor transports driving.

Following will be improved:

- Barrier purchased and mounted (2020 year)
- Containers purchased and mounted (2022 year)
- Informational boards purchased and mounted (2022 year)
- Parking space arranged and equipped (2024 year)
- Toilets arrangement (2022 year).

- Priority

Very important priority that should be partly perform in the 2020

- Most important ES
 - Cultural ES
- Possible activities

Well arranged entries will control the load of visitors, cars driving to the area. This will protect forest from the damages caused by human activity. Moreover, the entry space can include development of small businesses, infrastructure.
- Unwanted or prohibited activities

Following activities are not allowed or are restricted:

 - Driving the car in the forest area
 - Motorbikes use on some of the zones
 - Fireplaces
 - Waste producing
- Silviculture measures

Planting new trees to zone areas and organisation of visitors' flows are very important and valuable for the focus area.
- Measures for wood production

N/A
- Infrastructure measures

Infrastructure component includes construction of road, construction of separate space for parking, containers, and toilets.
- Additional plan/sketch, if needed



Figure 8 - Possible option of parking space in the focus area

- Costs

800000.00 euro
- Financiers

Local budget.
Executive Committee of Ivano-Frankivsk City Council;
Vovchynets Village Council
- Coordinators

Executive Committee of Ivano-Frankivsk City Council;
Vovchynets Village Council
- Stakeholders

SE “Ivano-Frankivsk Forestry”
Ivano-Frankivsk City United Territorial Unit population
- Legal basis
 - The Forest Code of Ukraine
 - The Land Code of Ukraine
 - The relevant laws of Ukraine
 - The regulations on state forest protection
 - On the Nature Reserve Fund of Ukraine
 - The relevant provisions and guidelines for forestry

4.5.3 A detailed plan for the recreational paths, cycling polygons

- Area Recreational paths, cycling polygons
- Condition / problems

An unmarked route/path that was popular on the Vovchynets hill has led to an unauthorized felling of trees. In addition, such route was traumatic. Forest managers complained of cyclists, and doctors have repeatedly testified to the traumatism of cyclists and children riding this route. In 2007, the route was marked for the first time and appropriate measures were taken to safeguard users. The total 2-way route of 25 kilometres was developed. The sign of the bicycle tourist route to Kozakova Dolyna in the Vovchynets Hill began with the final stop of trolleybus no. 3, through Vovchynets village and went all the way to Kozakova Dolyna. At the beginning of the route there was a board with a detailed description of the route, traffic scheme and map. All along the route, there were arrows on the trees that indicated the direction of traffic, as well as resting places. The final stop was Kozakova Valley, where a banner with a route and a rest area were placed. Due to this, the cycling route in the Vovchynets Hill has become civilized and gave the opportunity to ride not only children safely, but also to polish skills for cycling athletes and engage in extreme types of cycling. In 2018, city council has made an attempt to recover the route. 5 labelled and 4 environmental tables on the route installed. But these measures are not efficient now. Different tables/boards, routes disorganise users. Downhill cyclists created cycling polygons that are not marked. The route is not maintained, has some unauthorized dumps.
- Target state

Renewed bike route that can be used for cycling and hiking with 30 informational and educational boards/signs installed on the entire length of the route. The area of the route – cleaned and maintained. Polygons renewed, modernized and safety measures realized. The route is highly promoted and is presented on the all information, tourists' web-sites, mobile apps etc. In next 5 years new routes designed and promoted for different categories of users, with different levels of difficulty well-organized marking system.
- Purpose

The purpose is to promote healthy lifestyle, cycling, active leisure and downhillling as a modern sport preserving the original natural state of the trails / paths.

Following will improved:

 - 30 informational and educational boards/signs installed on the entire length of the bike route
 - 5 more routes designed and promoted
 - 4 cycling polygons modernized and secured
- Priority

Very important priority that should be perform in the 2020 – 2021

- Most important ES
 - Cultural ES

- Possible activities
 - Possible (planned) activities:
 - Cycling
 - Hiking
 - Downhill competitions
 - Cycling lessons
 - Tourists routes/paths
 - Educational paths

- Unwanted or prohibited activities
 - Following activities are not allowed or are restricted:
 - Driving the car in the forest area
 - Motorbiking
 - Fireplaces
 - Waste producing
 - Mixing routes
 - Trees cutting
 - Hunting
 - Damaging the biodiversity
 - Any constructions works
 - Any urbanization interventions

- Silviculture measures
 - Planting new trees to zone areas and organisation of visitor's flows are very important and valuable for the focus area. Protecting the biodiversity is crucial s roles in going through the Reserve

- Measures for wood production
 - N/A

- Infrastructure measures
 - N/A

- Costs
 - 35000.00 euro (including 16816.00 euro URBforDAN grant)

- Financiers
 - Local budget and grant costs.
Executive Committee of Ivano-Frankivsk City Council;
SE "Ivano-Frankivsk Forestry"

- Coordinators
 - Executive Committee of Ivano-Frankivsk City Council;
SE "Ivano-Frankivsk Forestry"

- Stakeholders
 - Ivano-Frankivsk City United Territorial Unit population
Vovchynets Village Council

- Legal basis
 - The Forest Code of Ukraine
 - The Land Code of Ukraine
 - The relevant laws of Ukraine
 - The regulations on state forest protection
 - On the Nature Reserve Fund of Ukraine
 - The relevant provisions and guidelines for forestry

4.5.4 A detailed plan for cycling space

- Area and map
 - Recreational cycling space*

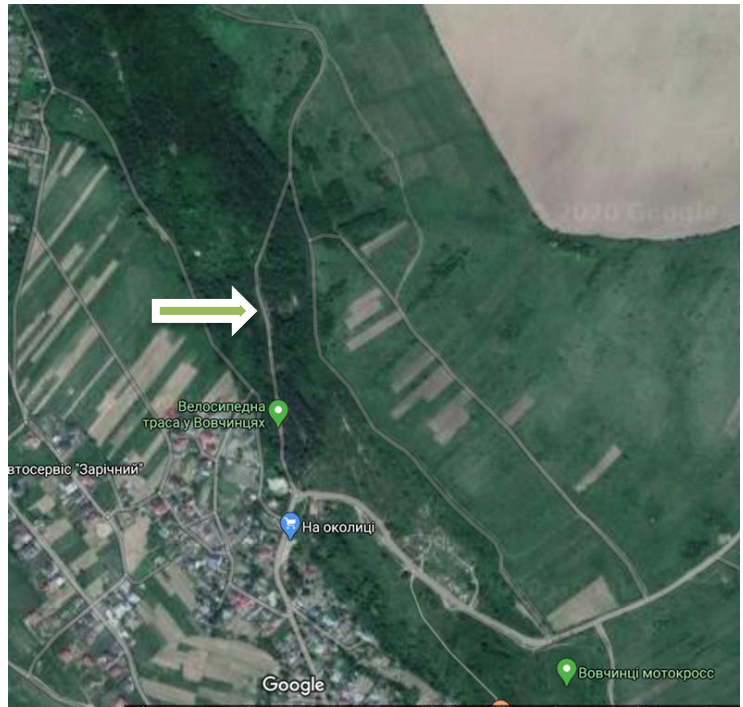


Figure 9- Map showing the planned location of space

- Condition / problems

Cyclists are part of main users of Vovchynets Hill. As were mentioned above a long cycling route goes through the focus area. Currently focus area is not equipped for any recreational activities. On the beginning of the route there is a nice green space that is often used for the rest of bike riders. The area is quiet, located on the route – all conditions for being upgrade but still maintain natural original state.

- Target state

It can be great to arrange the zone for cycling needs – put tables and benches, informational boards and bike parking lots. This could protect the trees and plants around of any damages, prevent leaving waste on the grass, instead propose bins for this case. The area can play of a role of cycling community meeting point. Informational and educational events can be conducted on the spot. There is a great ambition to develop national level downhill competitions. Cycling community have already tested area for that and it was really good experience with high opportunities to be continued.

- Purpose

Purpose is to strengthen the cycling culture in Ivano-Frankivsk through improving on the area by the multifunction space creating and promoting of downhill as a sport activity of local and national importance.

Following will be improved:

- tables and benches, informational boards and bike parking lots mounted on the defined area;
- workshops for cyclists on the improved space conducted;
- new project/initiative on downhill competition developed.

- Priority Very important priority that should be perform in the 2020 – 2021
- Most important ES
 - Cultural ES
- Possible activities

Possible activities:

 - + Cycling community meetings
 - + Workshops for cyclists on the spot, kids workshops
 - + Downhill competitions
- Unwanted or prohibited activities

Following activities are not allowed or are restricted:

 - Driving the car in the forest area
 - Motorbiking
 - Fireplaces
 - Waste producing
 - Mixing routes
 - Trees cutting
 - Hunting
 - Damaging the biodiversity
 - Any constructions works
 - Any urbanization interventions
- Silviculture measures

Planting new trees to zone areas and organisation of visitor’s flows are very important and valuable for the focus area. Protecting the biodiversity is crucial as route is going through the Reserve
- Measures for wood production N/A
- Infrastructure measures N/A
- Additional plan/sketch, if needed

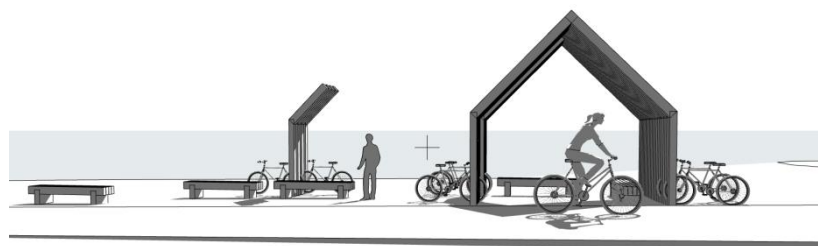


Figure 10 – Sketch of bike recreational space

- Costs 30500.00 euro (including 18500.00 euro URBforDAN grant)
- Financiers

Local budget and grant costs.
Executive Committee of Ivano-Frankivsk City Council;
SE “Ivano-Frankivsk Forestry”
- Coordinators

Executive Committee of Ivano-Frankivsk City Council;
SE “Ivano-Frankivsk Forestry”
- Stakeholders

Ivano-Frankivsk City United Territorial Unit population
Vovchynets Village Council

- Legal basis
 - The Forest Code of Ukraine
 - The Land Code of Ukraine
 - The relevant laws of Ukraine
 - The regulations on state forest protection
 - On the Nature Reserve Fund of Ukraine
 - The relevant provisions and guidelines for forestry

4.5.5 A detailed plan for points of interests (observation decks)

- Area and map

Observation decks

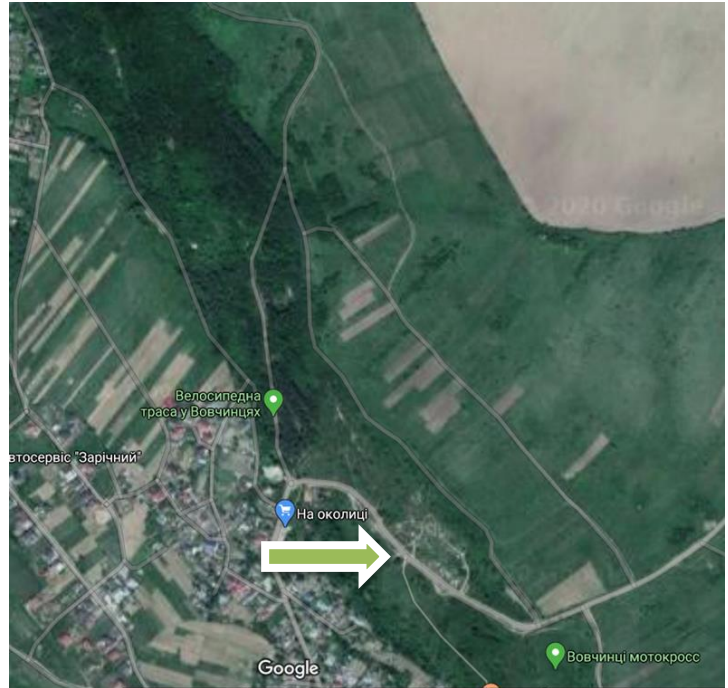


Figure 11 - Map showing the planned location of space

- Condition / problems

Current condition of the area can be described as a place with picturesque views from the Hill to the city, Carpathian Mountains. A favourite place for young couples to relax. However, unfortunately, such a rest is accompanied by a car driving to the end of Hill, garbage accumulation. Since the area is not fenced in any way, there is a danger of falling from the Hill. By using cars grass cover and plants are damaged.

- Target state

Safely fenced area with special equipment and street furniture that will attract visitors, tourists.

- Purpose

Purpose is to enhance tourist attractiveness of the area through creating at least 3 observation decks.

Following will be improved:

- Wooden fence and special covering will be mounted
- Binoculars will be mounted;
- Area cleaned;
- Tables and benches will be mounted;
- Waste bins will be mounted.

- Priority Very important priority that should be perform in the 2020 (1 observation deck)– 2022 (2 observation decks)

- Most important ES ○ Cultural ES

- Possible activities Possible activities:
 - ✚ Contemplation of landscapes
 - ✚ Photo shooting
 - ✚ Point of interest in the touristic routes
 - ✚ Open art plein-air

- Unwanted or prohibited activities Following activities are not allowed or are restricted:
 - Driving the car in the forest area and close to the cliffs of the Hill
 - Fireplaces
 - Waste producing
 - Damaging the biodiversity
 - Any constructions works
 - Loud and noisy activities

- Silviculture measures Planting new trees to zone areas and organisation of visitor's flows are very important and valuable for the focus area.

- Measures for wood production N/A

- Infrastructure measures Infrastructure measures include the construction of road that goes near the area, construction works for arranging parking lots, preparation works for the arranging of the decks

- Additional plan/sketch, if needed



Figure 12 - Design proposal of 1st observation deck

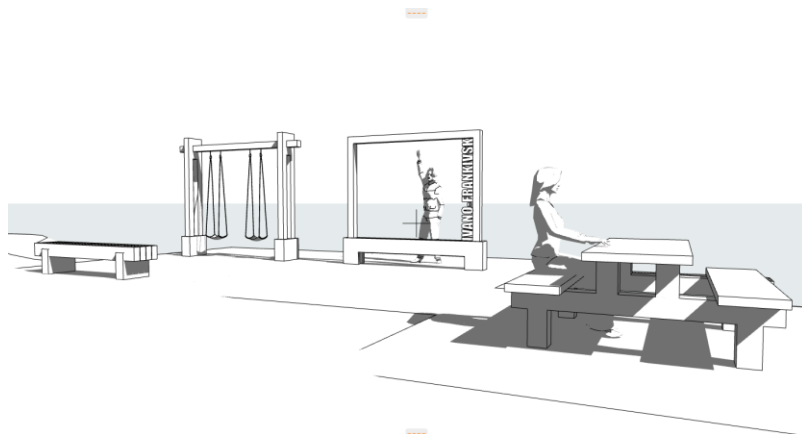


Figure 13- Design proposal of 2nd observation deck

- Costs 100000.00 euro (including 33500.00 euro URBforDAN grant)
- Financiers Local budget and grant costs.
Executive Committee of Ivano-Frankivsk City Council;
Vovchynets Village Council
- Coordinators Executive Committee of Ivano-Frankivsk City Council;
Vovchynets Village Council
- Stakeholders Ivano-Frankivsk City United Territorial Unit population
SE “Ivano-Frankivsk Forestry”
- Legal basis
 - The Forest Code of Ukraine
 - The Land Code of Ukraine
 - The relevant laws of Ukraine
 - The regulations on state forest protection
 - On the Nature Reserve Fund of Ukraine
 - The relevant provisions and guidelines for forestry

4.5.6 A detailed plan for info points: marking, routing equipment

- Area Info points: marking, routing equipment
- Condition / problems A few boards on the forest and old markings of bike routes can be found on the area. Isolated cases in the area of sport and active leisure ensured by business entities.
- Target state Well-arranged info-points on main entrance and along the routes. On the entrance in Vovchyntsi village can be arranged the point of renting equipment for the routs, trails or sport activities.
- Purpose The purpose is to increase the awareness of users on the area and attract business to develop new forms of active leisure on the Hill.
Following will be improved:
 - At least 4 info points arranged on the entrance;
 - Renting points arranged;

- Business attracted and being developed.

- Priority Very important priority that should be perform in the 2022
- Most important ES
 - Cultural ES
- Possible activities
 - Possible activities:
 - ❖ Alpine skiing
 - ❖ B.A.S.E + jumping
 - ❖ Cableway
 - ❖ Camping
 - ❖ Forest school
 - ❖ Mountain bike
 - ❖ volleyball
 - ❖ Running tracks
 - ❖ Sledging
 - ❖ Snowboarding tracks
 - ❖ Sports orienteering, wall arrangement for climbing lessons, the territory for alternative game types (laser, altimat-frisbee)
 - ❖ Yoga
- Unwanted or prohibited activities
 - Following activities are not allowed or are restricted:
 - Driving the car in the forest area and close to the cliffs of the Hill
 - Fireplaces
 - Waste producing
 - Damaging the biodiversity
 - Any constructions works
 - Loud and noisy activities
- Silviculture measures Planting new trees to zone areas and organisation of visitor's flows are very important and valuable for the focus area.
- Measures for wood production N/A
- Infrastructure measures N/A
- Additional plan/sketch, if needed

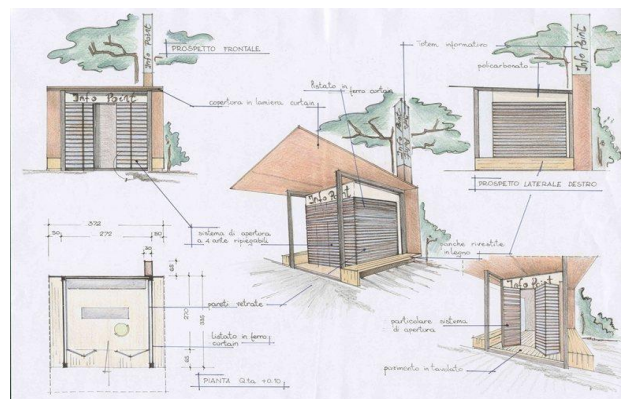


Figure 14 - Example taken form Internet⁴

⁴ <https://www.archilovers.com/projects/198174/gallery?1797668>

- Costs 10000.00 euro + business investments
- Financiers Local budget and business costs.
Executive Committee of Ivano-Frankivsk City Council;
Vovchynets Village Council
- Coordinators Executive Committee of Ivano-Frankivsk City Council;
SE “Ivano-Frankivsk Forestry”
- Stakeholders Ivano-Frankivsk City United Territorial Unit population
Business Sector
- Legal basis
 - The Forest Code of Ukraine
 - The Land Code of Ukraine
 - The relevant laws of Ukraine
 - The regulations on state forest protection
 - On the Nature Reserve Fund of Ukraine
 - The relevant provisions and guidelines for forestry

4.5.7 A detailed plan for playgrounds

- Area Playgrounds in forest area
- Condition / problems Area isn't equipped in any way for kids' leisure. the Vovchynets Hill is popular place for family rest.
- Target state A few playgrounds can improve area for the visitors in age from 3 to 15 years and for their parents to find the points of interest and suite needs of more variety of users of Vovchynets Hill.
- Purpose Purpose is satisfying needs of a wide range of users including kids and their parents.
Following will be improved:
 - 3 spots of the area will be improved with children and nature-friendly street furniture for outdoor games;
 - 3 spots cleaned and safety of spots ensured;
 - Relevant boards and signs will be provided to provide clear logistic.
- Priority Very important priority that should be partly performed in the 2020 (1 spot) and partly in 2025 (2 spots)
- Most important ES
 - Cultural ES
- Possible activities Possible activities:
 - ❖ Outdoor active leisure for kids
 - ❖ Playground games
 - ❖ Learning environment
- Unwanted or prohibited Following activities are not allowed or are restricted:

- | | |
|-------------------------------------|--|
| activities | <ul style="list-style-type: none"> ▪ Driving the car in the forest area and close to the cliffs of the Hill ▪ Fireplaces ▪ Waste producing ▪ Damaging the biodiversity ▪ Any constructions works ▪ Loud and noisy activities |
| • Silviculture measures | Planting new trees to zone areas and organisation of visitor's flows are very important and valuable for the focus area. |
| • Measures for wood production | N/A |
| • Infrastructure measures | N/A |
| • Additional plan/sketch, if needed | |

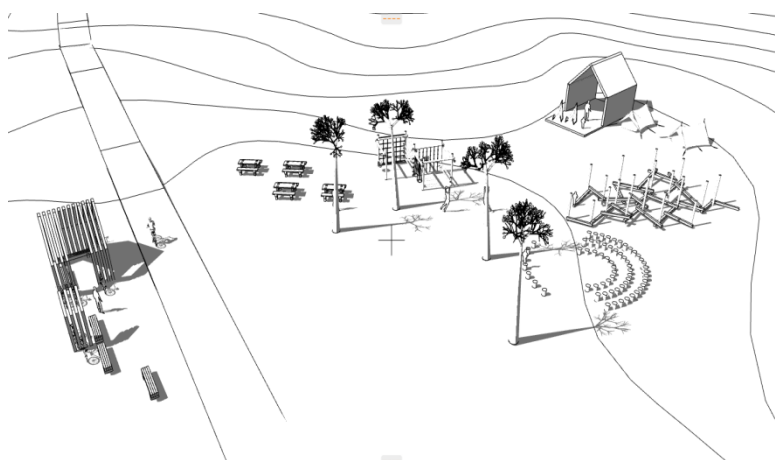


Figure 15- Sketch planned playground in the forest

- | | |
|----------------|--|
| • Costs | 30000.00 euro |
| • Financiers | Local budget
Executive Committee of Ivano-Frankivsk City Council;
SE "Ivano-Frankivsk Forestry"
Vovchynets Village Council |
| • Coordinators | Executive Committee of Ivano-Frankivsk City Council;
SE "Ivano-Frankivsk Forestry"
Vovchynets Village Council |
| • Stakeholders | Ivano-Frankivsk City United Territorial Unit population |
| • Legal basis | <ul style="list-style-type: none"> ▪ The Forest Code of Ukraine ▪ The Land Code of Ukraine ▪ The relevant laws of Ukraine ▪ The regulations on state forest protection ▪ On the Nature Reserve Fund of Ukraine ▪ The relevant provisions and guidelines for forestry |

4.5.8 A detailed plan for areas for kindergartens and forest schools

- | | |
|----------------|---------------------------------|
| • Area and map | Kindergartens and forest school |
|----------------|---------------------------------|

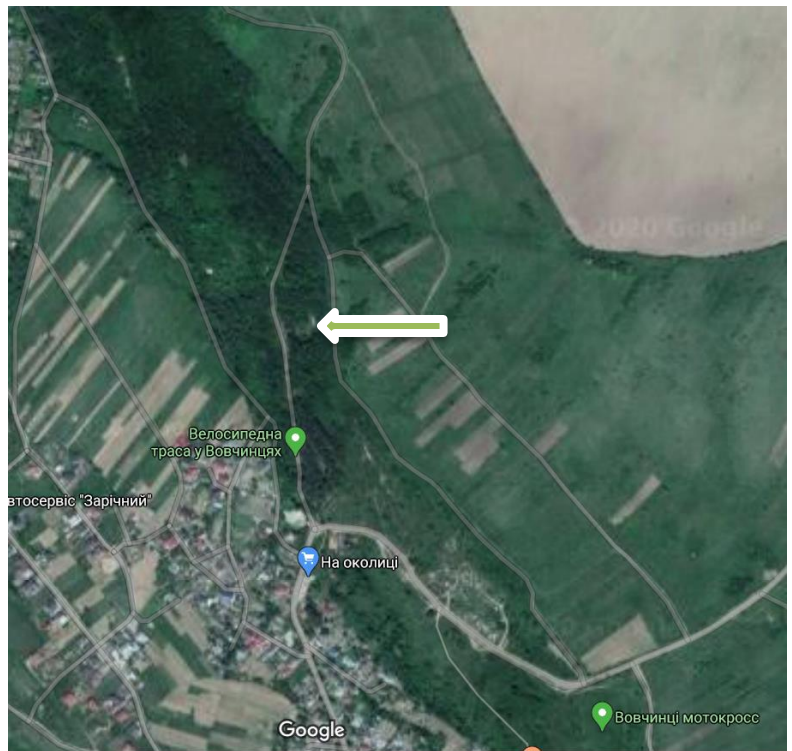


Figure 16 - Map showing the planned location of space

- Condition / problems

Area isn't equipped in any way for kids' leisure and education. Therefore the Vovchynets Hill is often chosen for the forest school classrooms. For now forest schools are not so popular type of education but it has all opportunities to become such. Definitely, open classes need mainly forest, nature and its biodiversity. Everything is available for this point of view. However, after meetings with stakeholders we received a wish from forest school's organizers that they need a shelter or any type of cover to discover forest in different weather conditions.
- Target state

The multifunctional natural shelter - a place giving temporary protection from bad weather or danger, but adaptive for the kids forest schools as a first priority use. Shelter should be made from natural materials and safety of its construction should be ensured.
- Purpose

Purpose is to encourage, motivate, engage and inspire children through positive outdoor experiences through forest school lessons.

Following will be improved:

 - Shelter designed and mounted;
 - Area cleaned;
 - Forest schools will be promoted;
 - Safety ensured.
- Priority

Very important priority that should be performed in the 2020
- Most important ES

 - Cultural ES

- Possible activities
 - ❖ Possible activities:
 - ❖ Outdoor active leisure for kids
 - ❖ Learning environment
 - ❖ Hands-on learning experiences in a woodland or natural environment with trees
 - ❖ Camping

- Unwanted or prohibited activities
 - Following activities are not allowed or are restricted:
 - Driving the car in the forest area and close to the cliffs of the Hill
 - Fireplaces
 - Waste producing
 - Damaging the biodiversity
 - Any constructions works

- Silviculture measures
 - Planting new trees to zone areas and organisation of visitor's flows are very important and valuable for the focus area.

- Measures for wood production
 - N/A

- Infrastructure measures
 - N/A

- Additional plan/sketch, if needed



Figure 17 - Example of all weather, all purpose outdoor shelters for playgrounds which can be used for a whole plethora of applications – outdoor classrooms, shade from the sun, shelter from the wind and snow, nature watch retreats, forest school den⁵.

- Costs
 - 40000.00 euro (32000.00 euro URBforDAN grant costs; 8000.00 euro local costs for maintaining the territory in proper condition)

- Financiers
 - Grant costs, Local budget
 - Executive Committee of Ivano-Frankivsk City Council;
 - SE “Ivano-Frankivsk Forestry”
 - Vovchynets Village Council

⁵ <https://www.hideouthouse.com/portfolio-item/outdoor-shelters-playgrounds/>

- Coordinators Executive Committee of Ivano-Frankivsk City Council;
SE “Ivano-Frankivsk Forestry”
Vovchynets Village Council
- Stakeholders Ivano-Frankivsk City United Territorial Unit population (schools, educational institutions)
- Legal basis
 - The Forest Code of Ukraine
 - The Land Code of Ukraine
 - The relevant laws of Ukraine
 - The regulations on state forest protection
 - On the Nature Reserve Fund of Ukraine
 - The relevant provisions and guidelines for forestry

4.5.9 A detailed plan for the accessibility to UPF (accessibility with public transport, availability of parking places, road construction)

- Area Accessibility to UPF (accessibility with public transport, availability of parking places, road construction)
- Condition / problems

There is a bus stop in the entrance in the Vovchynets village. Buses go from city centre (route no.34). Bus stop shelters have to be constructed and well-equipped.

Parking places now are not available. Drivers park the cars on any space and it is very chaotic and not good for village residents.

One of the major city roads ends near the entrance to the Vovchynets Hill (Vovchynetska Street). There is a strong need of continuation of the road across the Hill as it connects the city with our villages that due to the Decentralisation Form will be the part of Ivano-Frankivsk City United Territorial Unit. People use this area to drive to the work office, schools and kindergartens. In addition, there is a challenge with road construction as the Hill consists of limestone rocks. That’s why this natural peculiarity should be taken into account.
- Target state

Bus stop shelters should provide a place to sit, protection from weather, and a feeling of safety and security. People need to know when a bus will arrive and where it will go. This is especially important for people who are unfamiliar with the service, such as tourists. Schedule, route information, and a map should be located in or next to bus shelters but not so that the view of the oncoming bus is blocked

Parking space should be clearly defined and marked for the drivers. It should be connected to the road and does not preclude the entrance from residents’ houses.

Road connecting Vovchynets village with Kolodiivka, Uzyn and Dobrovliany Villages should be constructed.
- Purpose Purpose is to improve the accessibility of the Vovchynets Hill for the users with increasing the level of comfortability.

Following will improved:

- Bus stop shelter mounted
- Parking space defined and constructed
- Road constructed.

- Priority
- Most important ES
- Possible activities

Very important priority that should be performed in the 2025.

- Cultural ES

Possible activities:

- ❖ Comfortable and human and nature friendly parking
- ❖ Tourist routes developing
- ❖ Developing of the other entrance to the area
- ❖ Creating opportunities for business development around area

- Unwanted or prohibited activities

Following activities are not allowed or are restricted:

- Driving the car in the forest area and close to the cliffs of the Hill
- Fireplaces
- Waste producing
- Damaging the biodiversity

- Silviculture measures

Planting new trees to zone areas and organisation of visitor's flows are very important and valuable for the focus area.

- Measures for wood production

N/A

- Infrastructure measures

Following infrastructure measures should be conducted:

- Preparation works for mounted bus stop shelter;
- Construction of road (appr.40 km and parking space

- Additional plan/sketch, if needed

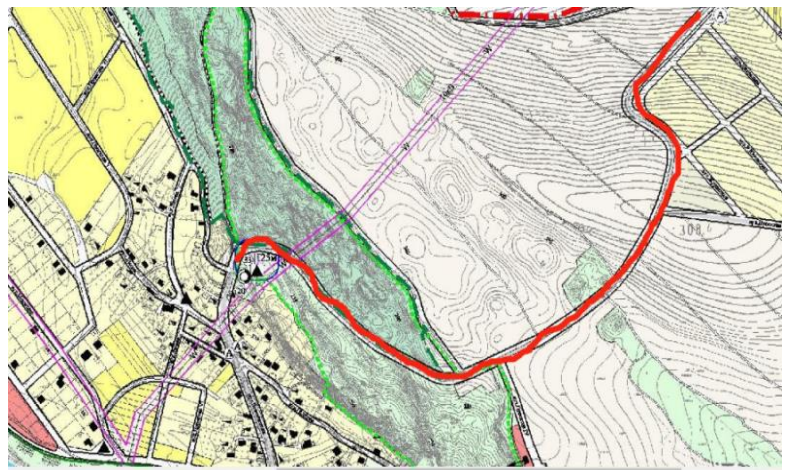


Figure 18- Sketch of road that need to be constructed

- Costs

2000000.00 euro

- Financiers

Local budget, investments
Executive Committee of Ivano-Frankivsk City Council;

- Coordinators

Executive Committee of Ivano-Frankivsk City Council;

SE “Ivano-Frankivsk Forestry”
Vovchynets Village Council

- Stakeholders Ivano-Frankivsk City United Territorial Unit population
- Legal basis
 - The Forest Code of Ukraine
 - The Land Code of Ukraine
 - The relevant laws of Ukraine
 - The regulations on state forest protection
 - On the Nature Reserve Fund of Ukraine
 - The relevant provisions and guidelines for forestry

4.5.10 A detailed plan for promotion and informing the users

- Area and map Promotion and informing the users
- Condition / problems

Level of awareness on the Vovchynets Hill of the Ivano-Frankivsk city residents is rather low. People know that there is a Hill. But information of beautiful landscapes, Reserve Kozakova Valley, bike routes, and rich historical background is so limited.

According to the stories of the elderly inhabitants of the village Kolodiivka, Kozakova Valley has been known since 1648. At that time, on the picturesque site of the present Vovchynets, where two rivers of Bystrytsa converge, broke up the camp of the Cossacks of Vysochana. Immediately in 1945, liberation uprising was in the camp. Subsequently, in memory of the Cossacks, the Highlanders nicknamed the place the Cossack (in Ukrainian Kozak) Valley. Like the Khortytsia island in the Zaporizhiiia region, an oak, which is more than 300 years old, is growing on the Kozakova Valley.
- Target state

Promotion and information activities are conducted regularly. Level of population awareness increased. Nevertheless, the information should contain data of behavior in the urban and peri-urban forests. Also, the load of users on the area still should be monitored and controlled.
- Purpose

Purpose is to promote the UPF on the Vovchynets Hill as multifunctional recreational area and place of rich natural biodiversity.

Following will be improved:

 - Communication strategy for promoting area developed;
 - Executive Committee of Ivano-Frankivsk City Council will promote and develop the area among citizens and tourists;
 - Travel agency will include the spot to the tourist excursions.
- Priority Very important priority that should be performed regularly.
- Most important ES
 - Cultural ES
- Possible activities Possible activities:

- ❖ Events conducting on the area
 - ❖ Tourist routes developing
 - ❖ Regular information dissemination about the Vovchynets Hill
- Unwanted or prohibited activities
 - Following activities are not allowed or are restricted:
 - Promoting environmentally unfriendly activities
 - Promoting too loud and noisy events
 - Silviculture measures N/A
 - Measures for wood production N/A
 - Infrastructure measures N/A
 - Costs 3000.00 euro
 - Financiers
 - Local budget
 - Executive Committee of Ivano-Frankivsk City Council
 - SE “Ivano-Frankivsk Forestry”
 - Vovchynets Village Council
 - Coordinators
 - Executive Committee of Ivano-Frankivsk City Council;
 - SE “Ivano-Frankivsk Forestry”
 - Vovchynets Village Council
 - Stakeholders
 - Ivano-Frankivsk City United Territorial Unit population
 - Legal basis
 - The Forest Code of Ukraine
 - The Land Code of Ukraine
 - The relevant laws of Ukraine
 - The regulations on state forest protection
 - On the Nature Reserve Fund of Ukraine
 - The relevant provisions and guidelines for forestry

5 GOVERNANCE

5.1 Implementation/ responsibility

- A list of main managers/coordinators of activities and their responsibilities

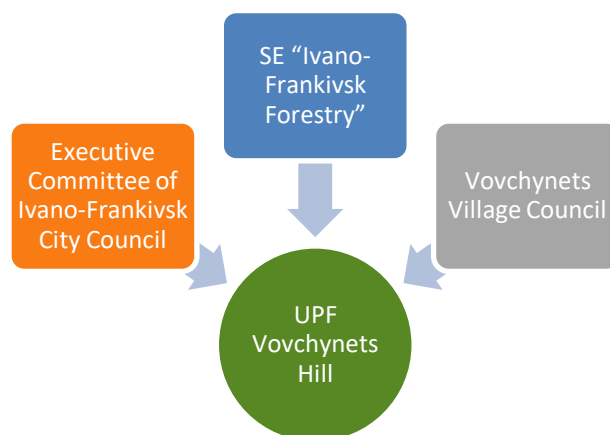


Figure 19 - bodies which will be responsible for the implementation of the plan during the URBforDAN project and after

The responsibility will be divided between Forestry managers, representatives of municipality and village council.

Table 4 - Activities and body responsible

Responsible body	Activities that the body is responsible for:
Executive Committee of Ivano-Frankivsk City Council	<ul style="list-style-type: none"> - arrangement of entry points - recreational paths, cycling polygons - cycling space - points of interests (observation decks) - info points: marking, routing equipment - playgrounds - areas for kindergartens and forest schools - accessibility to UPF - promotion and informing the users
SE "Ivano-Frankivsk Forestry"	<ul style="list-style-type: none"> - silviculture and forest management - recreational paths, cycling polygons - cycling space - info points: marking, routing equipment - playgrounds - areas for kindergartens and forest schools - accessibility to UPF - promotion and informing the users
Vovchynets Village Council	<ul style="list-style-type: none"> - arrangement of entry points - points of interests (observation decks) - playgrounds - areas for kindergartens and forest schools - accessibility to UPF - promotion and informing the users

Responsible bodies will maintain and develop defined activities, ensure the infrastructure measures implementation (if relevant), safety and security of spaces created within project, control and monitoring of IMMP realization.

- Subsidy system

N/A. Forest on the Vovchynets Hill is public, state and municipality ownership.

5.2 Forest owner association

N/A

6 MONITORING

6.1 Indicators of monitoring and control

Table 5 - Indicators of monitoring and control

Activity	Main improvements	Based value	Target value	Timeframe
SILVICULTURE AND FOREST MANAGEMENT	Rehabilitation of the degraded area	0	15 ha	Regularly
	Regular analysis of Population estimation & behaviour	0	1	Regularly
	Educational and awareness events	0	3 per year	Regularly
	Strengthened measures to protect and clear the territory	0	1	Regularly
ARRANGEMENT OF ENTRY POINTS	Barrier purchased and mounted	0	1	2020
	Containers purchased and mounted	0	5	2022
	Informational boards purchased and mounted	0	6	2022 year
	Parking space arranged and equipped	0	1	2024
	Toilets arrangement	0	2	2022
RECREATIONAL PATHS, CYCLING POLYGONS	Informational and educational boards/signs installed on the entire length of the bike route	0	30	2020
	More routes designed and promoted	1	6	2021
	Cycling polygons modernized and secured	0	4	2021
CYCLING SPACE	Tables and benches, informational boards and bike parking lots mounted on the defined area	0	6	2020
	Workshops for cyclists on the improved space conducted	0	2	2020
	New project/initiative on downhill competition developed	0	3	2021
POINTS OF INTERESTS (OBSERVATION DECKS)	Wooden fence and special covering will be mounted	0	1	2020 -2022
	Binocular will be mounted	0	1	2020 - 2022

	Area cleaned	0	1	2020 -2022
	Tables and benches will be mounted	0	10	2020 -2022
	Waste bins will be mounted	0	10	2020 -2022
INFO POINTS: MARKING, ROUTING EQUIPMENT	At least 4 info points arranged on the entrance	0	4	2020-2021
	Resting points arranged	0	2	2020-2021
	Business attracted and being developed	0	2	2020-2021
PLAYGROUNDS	3 spots of the area will be improved with children and nature-friendly street furniture for outdoor games	0	3	2025
	3 spots cleaned and safety of spots ensured	0	3	2025
	Relevant boards and signs will be provided to provide clear logistic	0	3	2025
AREAS FOR KINDERGARTENS AND FOREST SCHOOLS	Shelter designed and mounted	0	1	2020
	Area cleaned	0	1	2020
	Forest schools will be promoted	0	2	2020
	Safety ensured	0	1	2020
ACCESSIBILITY TO UPF	Bus stop shelter mounted	0	1	2025
	Parking space defined and constructed	0	1	2025
	Road constructed	0	1	2025
PROMOTION AND INFORMING THE USERS	Communication strategy for promoting area developed	0	1	Regularly
	Executive Committee of Ivano-Frankivsk City Council will promote and develop the area among citizens and tourists	0	Regularly	Regularly
	Travel agencies will include the spot to the tourist excursions	0	At least 5	2024
SURVEY OF VISITORS	Periodical survey of visitors with standard questionnaire	0	10	Each 6 months (2 per year, 10 until 5 years)

6.2 Revision of the plan

The plan will be revised each 2 year by the Executive Committee of Ivano-Frankivsk City Council SE “Ivano-Frankivsk Forestry”. The main responsible body for the control and monitoring of plan realization is the Executive Committee of Ivano-Frankivsk City Council.

Strategic and Operational parts of IMMPs will be joined together in one general IMMP. IMMP will be attached to the Program for Environmental Protection of Ivano-Frankivsk City until 2028 (or 2021-2025; it’s not clarified yet) that will be developed during this year. The Plan will be adopted by the city council. The State Enterprise “Ivano-Frankivsk Forestry” will use the IMMP as guideline for annually plans and will accept it officially.

7 COSTS AND FINANCING

Table 6 – Costs and financing

Activity	URBforDAN grant costs, euro	Financing after project, euro	Total costs, euro
SILVICULTURE AND FOREST MANAGEMENT	0.00	50000.00	50000.00
ARRANGEMENT OF ENTRY POINTS	0.00	800000.00	800000.00
RECREATIONAL PATHS, CYCLING POLYGONS	16816.00	18184.00	35000.00
CYCLING SPACE	18500.00	12000.00	30500.00
POINTS OF INTERESTS (OBSERVATION DECKS)	33500.00	66500.00	100000.00
INFO POINTS: MARKING, ROUTING EQUIPMENT	0.00	10000.00	10000.00
PLAYGROUNDS	0.00	30000.00	30000.00
AREAS FOR KINDERGARTENS AND FOREST SCHOOLS	32000.00	8000.00	40000.00
ACCESSIBILITY TO UPF	0.00	2000000.00	2000000.00
PROMOTION AND INFORMING THE USERS	0.00	3000.00	3000.00
TOTAL	100816.00	2997684.00	3098500.00