

DANUBE WOOD(s)ROUTE

Regional Action Plan of Bulgaria Activity 1.3

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1. Introduction

1.1. General information of the Partner

PROJECT	Danube Wood(s) Route
PARTNER ORGANISATION CONCERNED	Varna Economic Development Agency (VEDA)
COUNTRY	Bulgaria
NUTS2 REGION	North-East Planning Region
NUTS3 REGION	Varna Region
CONTACT PERSON	Todorka Dimitrova
E-MAIL ADDRESS	office@veda-bg.eu

Varna Economic Development Agency (www.veda-bg.eu) is a not-for-profit, non-governmental association, registered to operate in public benefit. Located on the territory of Varna District in Bulgaria, the Agency was established in 1997 under the joint program Local Government Initiative of Varna Municipality and the USAID to assist the advancement of regional economic development. Varna Economic Development Agency (VEDA) aims to provide leadership for the establishment of conditions for sustainable social and economic development of Varna and the region.

VEDA is a member of the Regional Council for Development of North-East Planning Region of Bulgaria and cooperate with respective policy and decision makers for the strategic development of the region.

VEDA has extensive experience in realization of multinational projects, among them in the recent projects with acronyms TOURISMO and RE-ACT Schools (Interreg EURO-MED), Danube Wood(s) Route (Interreg Danube), WINBLUE (EMFAF), and others.

VEDA area of expertise includes but is not limited to research, delivery of training and advisory services, capacity building and support for local stakeholders in the area of tourism, innovation and eco-innovation, agriculture, blue economy sectors. The agency's tasks mainly involve the creation of analyses, country reports, feasibility studies, policy recommendations, as well as branding and communication (websites, portals, web-aps, video recording, brochures and different promotional materials).

By participating in the Danube Wood(s) Route project, VEDA builds on its previously implemented projects and concepts aimed at fostering economic growth and employment in remote areas. This is achieved by creating favourable conditions to attract tourists and increase visitor flows, with a focus on highlighting and promoting the region's unique characteristics and tourism potential.

1.2. Overall and specific objectives of the Action Plan

The Danube Wood(s) Cultural Route Regional Action Plan (RAP) for the Varna Region in Bulgaria is a key component of the broader Danube Wood(s) project. It aligns with the strategic framework outlined in the Danube Wood(s) Cultural Route Strategy. The primary objective of the project is to promote the sustainable use of the Danube region's forest resources while integrating wood-related cultural heritage into ecotourism development. The RAP adapts the common transnational strategy into concrete, region-specific actions that address the unique needs and opportunities of the Varna Region.

The regional analysis within the Varna RAP was conducted with a focus on the Northeast Planning Region (NUTS 2), aiming to identify practical measures for the protection and sustainable use of natural resources. The actionable measures outlined in the RAP address not only ecological and economic challenges but also contribute to enhancing social cohesion and promoting balanced regional development.

A key objective of the RAP is to facilitate agreement among regional stakeholders on specific measures that will advance the broader goals of the Danube Wood(s) Route project. This includes collective ideas in relation to locations that hold cultural and natural significance, enhancing their visibility, and integrating them into structured, sustainable tourism. By doing so, the RAP contributes to the project's primary objective of protecting and improving the sustainable use of the region's forest resources.

The strategic framework of RAP is rooted in the Danube Wood(s) Cultural Route Strategy, supporting the development of sustainable tourism infrastructure and services, including eco-lodges, cultural heritage centres, and thematic trails. These elements not only highlight the rich wood-related cultural heritage of the region but also foster economic opportunities for local communities through ecotourism and wood-based industries. In addition, the RAP promotes conservation efforts, such as the protection of historical wooden structures and biodiversity conservation initiatives, ensuring that the environmental integrity of forest ecosystems is maintained.

The RAP also plays a crucial role in empowering local and regional actors by facilitating capacity-building initiatives. These include training workshops, knowledge-sharing networks, and stakeholder collaboration to strengthen the operational capacity of the Danube Wood(s) cultural route. By enabling actors at the regional level to actively participate in the development and management of the route, the RAP ensures that the project is implemented in a way that reflects local priorities and needs.

Innovation and sustainability objectives of the Danube Wood Cultural Route are embraced in the RAP by promoting responsible forest management practices, sustainable forestry certification, and entrepreneurship in wood-based industries. Encouraging the development of eco-friendly furniture, bio-based materials, and traditional crafts not only diversifies economic opportunities but also reinforces sustainable use of natural resources.

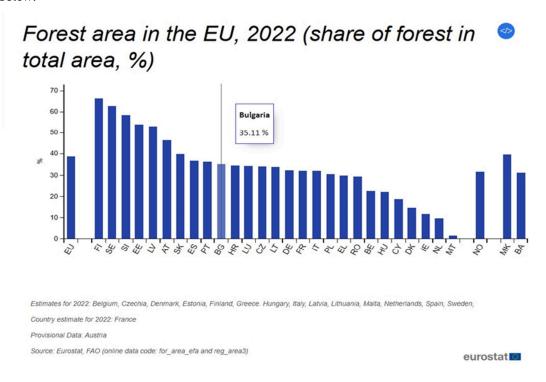
Education and public awareness are also central to the RAP's implementation. By integrating wood heritage and sustainable forestry education into school curriculums and vocational training, the RAP ensures that future generations recognize the importance of preserving forest-related cultural assets. Community workshops, public awareness campaigns, and digital platforms further enhance engagement, fostering a deeper appreciation for the cultural and ecological value of the Danube region's forests.

Overall, the Regional Action Plan is a vital tool for translating the strategic vision of the Danube Wood Cultural Route into actionable, region-specific measures. Through its focus on preservation and conservation, wood-based ecotourism, sustainable forestry, and education, the RAP lays the groundwork for a sustainable and inclusive future for the Danube region's wood heritage. By fostering stakeholder collaboration, promoting innovative tourism models, and enhancing cultural and environmental awareness, the RAP contributes significantly to the broader objective of the Danube Wood(s) Route initiative: ensuring the sustainable and long-term valorisation of the region's rich forest-based cultural and natural resources.

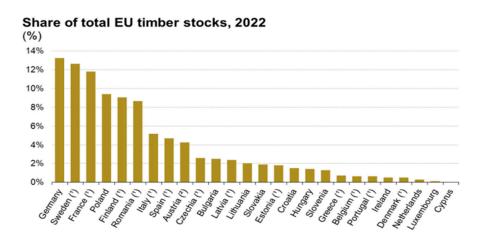
2. Regional Analyses

In addition to the traditional production of wood and other forest-based products, forests are increasingly valued for their environmental role and as a public amenity. A wide range of EU policies and initiatives are linked to forests and the ecosystem services they provide, including biodiversity and climate change mitigation. This is recognized in the EU Forest Strategy for 2030, the EU Biodiversity Strategy, the EU Nature Restoration Law and in the Renewable Energy Directive (RED). The forest also plays an important role in the EU Bioeconomy Strategy by supporting employment in rural areas.

In 2022, the EU had an estimated 160 million hectares of forests (excluding other wooded land). In relative terms, this means that forests cover 39% of the EU's land area. According to EUROSTAT data, in 2022 Bulgaria has 35.11% share of forests in total EU forest area, which is presented in the Figure 1 below:



The stocks of timber in the EU's forests is estimated to be 28.6 billion m3 (over bark) in 2022. Bulgaria accounts for the average share of this (2.1%) compared to other EU countries- leaders in this respect i.e. Germany accounts for the largest share of this (13.2%), followed by Sweden (12.6%), and France (11.8%). (Figure 2)



(¹) Estimates for 2022 (²) Provisional data Note: All data for 2000 are estimates. Data for France refer to metropolitan France. Source: Eurostat (online data code: for_vol_efa)

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The total **gross value added (GVA)** generated by the forestry and logging industry in the EU reached €27.9 billion in 2022. The economic indicators for forestry and logging in the EU countries, considering the period 2000 and 2022, is presented in the following table (Table 1):

Economic indicators for forestry and logging industry, 2000 and 2022

	Gross val	ue added		value rest area	Gross valu	e added as	
	€ million, cu	million, current prices		(€ / hectare)		(%)	
	2000	2022	2000	2022	2000	2022	
EU (¹)	16,698	27,878	110	174	0.21	0.17	
Belgium (1:2)	100	94	149	136	0.04	0.02	
Bulgaria	52	465	15	119	0.36	0.54	
Czechia (1)	388	1,261	147	471	0.58	0.44	
Denmark (2)	129	234	226	373	0.07	0.06	
Germany	1 601	3,221	141	281	0.08	0.08	
Estonia (1·2)	69	253	31	104	1.11	0.69	
Ireland	53	57	84	70	0.05	0.01	
Greece (1·2)	64	47	18	12	0.05	0.02	
Spain (1'2)	1,546	918	90	49	0.24	0.07	
France	2 674	3,931	175	222	0.18	0.15	
Croatia	106	258	56	132	0.45	0.38	
Italy (1)	1,083	2,249	129	234	0.09	0.11	
Cyprus	:	2	:	13	:	0.01	
Latvia (¹¹²)	123	490	38	144	1.46	1.36	
Lithuania (²)	65	212	32	96	0.52	0.31	
Luxembourg	12	2	140	18	0.05	0.00	
Hungary (1)	143	330	74	159	0.28	0.20	
Malta (1'2)	0	0	0	0	0.00	0.00	
Netherlands (1)	76	217	211	597	0.02	0.02	
Austria	784	1,314	204	338	0.37	0.29	
Poland	705	2,124	78	224	0.38	0.32	
Portugal	1,253	990	382	297	0.98	0.41	
Romania	193	1,673	30	239	0.47	0.59	
Slovenia	93	434	75	367	0.43	0.76	
Slovakia	128	784	68	401	0.57	0.71	
Finland (1)	2,239	4,361	100	195	1.64	1.64	
Sweden (1)	3,020	1,959	107	70	1.06	0.35	
Norway		871	-:-	72		0.15	
Switzerland	195	462	163	:	0.06	0.06	
Bosnia and Herzegovina	:	530	:	334		2.27	
North Macedonia		92		91		0.70	

(:) not available

(*) Data on forest area are 2021 estimates. (2) Data on GVA are 2020 estimates Note: Data for France refer to metropolitan France.

Source: Eurostat (online data codes: for_eco_cp,

for_area_efa and nama_10_gdp)

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It shows the increase in the GVA values for the three indicators in 2022 compared the base values in 2000.

The next table (Table 2) provides data on **employment and apparent labour productivity** within the EU's forestry and logging sector, using National Accounts employment data. In the EU, about 476 260 persons work in the forestry and logging sector in 2022, which represents a decrease of 16% compared to 2000. The workforce recorded in Bulgaria for work in the forestry and logging sector in 2022, is 22 300 persons.

Employment in forestry and logging, 2000 and 2022

	Persons employed		Persons employed / area of forest		Apparent labour productivity
	2000	2022	2000	2022	2022
	(1 000 p	ersons)	(persons employ 1 000 ha)		(€ 1000 GVA / person employed)
EU (¹)	564.1	476.3	3.7	3.0	58.5
Belgium (1)	2.7	1.8	4.0	2.6	52.0
Bulgaria	22.7	22.3	6.7	5.7	20.8
Czechia (1)	37.7	22.1	14.3	8.2	57.0
Denmark	4.8	5.0	8.3	8.0	46.6
Germany	60.0	42.0	5.3	3.7	76.7
Estonia (¹)	9.1	5.7	4.1	2.3	44.7
Ireland	2.7	2.0	4.3	2.5	28.1
Greece (1)	7.8	9.6	2.2	2.5	4.9
Spain (1)	38.6	14.1	2.3	8.0	65.1
France (1)	42.6	29.9	2.8	1.7	131.5
Croatia	32.3	10.8	17.1	5.6	23.8
Italy (¹)	20.4	31.7	2.4	3.3	70.9
Cyprus	0.5	0.6		3.7	3.5
Latvia (¹)	12.5	13.2	3.9	3.9	37.1
Lithuania	12.6	10.0	6.2	4.5	21.1
Luxembourg	0.7	0.4	7.8	4.1	4.3
Hungary (1)	18.5	17.3	9.6	8.4	19.1
Malta (¹)	0.0	0.0	0.0	0.0	
Netherlands (1)	2.0	3.0	5.6	8.3	72.3
Austria	29.1	20.1	7.6	5.2	65.4
Poland	64.3	33.8	7.1	3.6	62.8
Portugal	12.1	15.2	3.7	4.5	65.3
Romania	45.0	53.9	7.1	7.7	31.0
Slovenia	5.3	5.0	4.3	4.2	87.6
Slovakia	32.1	24.1	16.9	12.3	32.5
Finland (1)	19.7	21.4	0.9	1.0	203.8
Sweden (1)	34.0	61.0	1.2	2.2	32.1

^(:) not available

Note: Data on forest area for 2000 are estimates. Data for France refer to metropolitan France.

Source: Eurostat (online data codes: nama_10_a64_e,

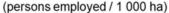
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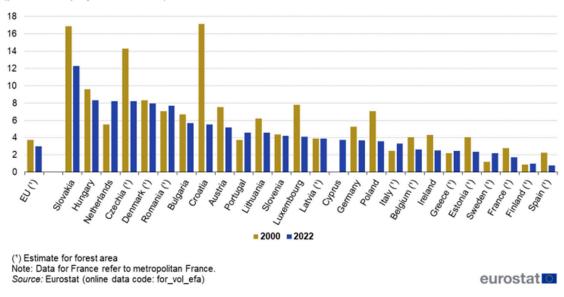
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The ratio of labour input per area of forest gives an indication of the labour intensity of the sector across EU countries. This value varies considerably between countries. Part of the differences across EU countries is viewable comparing data for Bulgaria (about 5.8) in 2022 with data ranging around 12.3 employed persons per 1 000 hectares in Slovakia (see Table 2 and Figure 5). This may reflect differences in management practices, the density of the timber stock, forest patch-size and connectivity, and the terrain.

⁽¹⁾ Data on forest area are Eurostat estimates.

Employment per area of forest, 2000 and 2022





The labour productivity of the forestry and logging sector (calculated as GVA per person employed) varied also substantially across EU countries in 2022. The highest levels of labour productivity were recorded in Finland (€203 800 per person employed), while for Bulgaria it is about 20 800 per person employed. (see Table 2 above).

Forests in Bulgaria

Forested areas in Bulgaria occupy about one-third of the country territory, amounting to 4.230 million ha, of which 3.864 million ha are forests. The standing wood volume of forests in Bulgaria has almost tripled from the 1960s and now amounts to about 680 million m3. Bulgarian forests have outstanding biodiversity with the vascular flora alone consisting of 4,102 species. In economic terms, the annual contribution by forestry, logging, and furniture production is approximately €500 million (EUROSTAT and European Sector Monitor of Wood Processing and Furniture Industry). About 43,000 people are employed in the forestry sector and in some rural areas, it is the main driver of economic output.

Climate change projections for increases in temperature, warmer winters, and more summer droughts along with greater number and magnitude of extreme climate events, such as heat waves and cold spells, severe storms, wet snow, and ice accumulation, will reduce forest health and tree growth, increase attacks from insects and fungi, including invasive species and cause serious losses due to fires and storm-related damages. There is already evidence of impacts on the forestry sector in Bulgaria from these types of climate events. In future these could contribute to very high economic losses, degradation of the ability of forests to sequester carbon and affect the quality of life in Bulgaria by reducing the delivery of valued ecosystem services.

2.1. Natural and cultural assets

The Varna Region in Bulgaria boasts significant natural and cultural assets related to its forests, which present diverse opportunities for tourism utilization. The Region's forests are a vital natural and cultural resource with diverse tree species, protected areas, and unique geological formations like the Stone Forest. These assets support a variety of tourism including ecotourism, health tourism, and cultural tourism, making the forests a key element in the region's tourism potential and sustainable development.

Natural Assets of Forests in Varna Region

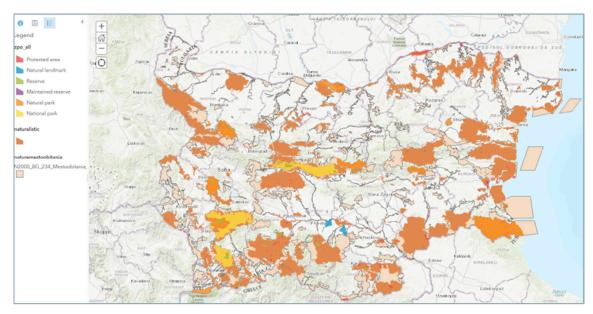
The Varna region in Bulgaria has significant forest and timber assets managed primarily by the Regional Forest Directorate Varna, which oversees about 185,559 hectares of forest with a wood stock of approximately 18.45 million cubic meters. The forests are mostly state-owned, with about 91% of the national stock in the area being national forests. The forest types include sprouting forests (36.6%), deciduous high-stem forests (28.2%), and coniferous cultivations (6.3%), with common species such as Turkey oak, oak, acacia, Pinus nigra, hornbeam, ash, Oriental beech, and lime-tree.

The region includes several protected natural reserves and parks such as the Golden Sands Nature Park, Kamchia reserve, Varbov dol, Kriv dol, Kalfata, Kazashko, and Valchi proud. **These areas have rich biodiversity with unique flora and fauna**, including endemic plants specific to the Pontic flora. **The Kamchia floodplain forest** is notable for its multi-storey structure and rainforest-like appearance in a temperate climate, enhancing the ecological value of the region.

The "Stone Forest" (Pobiti Kamani), located 18 km west of Varna, is a remarkable natural phenomenon consisting of about 300 limestone columns up to 6 meters high, resembling a petrified forest. It is part of the Natura 2000 ecological network and one of Bulgaria's first protected areas since 1938. The site is of high conservation value and attracts tourists interested in unique geological formations and nature.



Protected territories and protected areas in Bulgaria in terms of natural assets are presented on the following map:



linformation about the **Protected territories and protected areas in Bulgaria**, including for the areas in Varna region could be observed directly from the map. The link to the map is presented in the section "Resources" ho this Regional Action Plan.

There is a Register of the protected territories and areas in Bulgaria, including on the territory of Varna region. It is developed and maintained by the Environment Executive Agency (EEA) at the Ministry of environment and water.

Register of the Ancient Trees in Republic of Bulgaria is also maintained by the EEA.

There is a Map of the Ancient Trees in Republic of Bulgaria, including Varna and the region. The links for access to the registers and the map is available the section "Resources" too.

Cultural Assets Related to Forests

The Varna region combines natural beauty with rich cultural heritage, including archaeological sites, ethnographic museums, and cultural festivals. The proximity of forested areas to cultural landmarks and resorts (e.g., spa-hotel Orpheus Palace surrounded by dense forest) enhances the potential for integrated cultural and nature tourism.

The Varna region's forests are deeply intertwined with its cultural assets, from prehistoric sites and medieval monasteries to protected natural landmarks. These sites are valued not only for their natural beauty but also for their historical, spiritual, and folkloric significance.

Part of the cultural assets in Varna region related to forests, include:

✓ Aladzha Monastery - Located about 17 km from Varna, it is a medieval cave monastery carved into a forested limestone cliff. Surrounded by woodland, the monastery features rock-cut cells and chapels, with remnants of frescoes from its period of use. The monastery reflects the spiritual and cultural heritage of the region, showcasing the interaction between religious life and the natural forest environment. It was inhabited by hesychast monks from the 12th to the 18th century.



✓ Roman Thermae and Early Christian Sites - These are several ancient sites in and around Varna are located near forested landscapes, reflecting the historical connection between human settlement and natural environments.



✓ Varna Archaeological Museum - Houses artifacts from the region, including items found in forested and natural areas, such as the Gold of Varna from the Varna Necropolis, which is one of the oldest gold treasures in the world.



✓ Local Legends - The forests around Varna, particularly the Stone Forest, have inspired numerous legends and stories, contributing to the region's intangible cultural heritage.

2.2. Social and economic conditions in the region

Forest assets significantly influence Varna's local economy and social conditions by providing multiple ecological, economic, and social benefits that enhance quality of life, especially in rural and mountainous areas. Forests in Varna are considered a national wealth and identity, professionally managed to sustain their ecological functions while supporting economic activities such as timber production, furniture manufacturing, and renewable energy generation.

Socially, forests foster community cohesion and cultural identity, offering recreational and ecotourism opportunities that promote social well-being and economic diversification. Sustainable forest management practices help maintain these benefits over time, balancing resource use with conservation to ensure long-term community resilience.

Sustainable forestry practices can significantly **improve social conditions in Varna** by delivering a range of interconnected benefits:

- Job Creation and Income Stability: Sustainable Forest management supports long-term employment in forestry, timber processing, and related industries. It ensures that local communities have stable jobs and income sources by maintaining the health and productivity of forest resources.
- Community Development: These practices can fund and improve access to basic services such as education, healthcare, and infrastructure. By engaging local communities in forest management, sustainable forestry fosters social cohesion, empowerment, and participation in decision-making.

- Public Health and Well-being: Sustainable forestry enhances green spaces, improves air and water quality, and provides recreational opportunities, all of which contribute to better public health and overall quality of life.
- Cultural and Social Value: Forests are integral to the cultural and spiritual life of many communities. Sustainable management preserves these values and ensures that traditional knowledge and customs are respected and passed on.
- Ecotourism and Diversification: By protecting biodiversity and natural landscapes, sustainable forestry supports ecotourism, which brings additional income and revitalizes rural areas. This diversification reduces economic dependence on a single sector and increases community resilience.
- Environmental Education and Awareness: Sustainable practices often include educational initiatives that raise environmental awareness and encourage responsible resource use, benefiting both current and future generations.

Economically, forests contribute to local income through timber harvesting and related industries, which create jobs and support livelihoods in the region. The forest sector also underpins rural development by supplying non-timber products and ecosystem services that are vital for agriculture, soil fertility, and water regulation. These benefits are particularly important for underprivileged and forest-dependent communities, providing safety nets during agricultural failures and diversifying income sources beyond conventional markets.

Forestry is a key sector in the region, contributing to both timber production and environmental functions. The Regional Forest Directorate prioritizes forestation, with an annual average of about 6,296 decares reforested. The annual wood use is around 292,000 cubic meters of lying wood-pulp. The forest sector in Bulgaria, including Varna, is part of a broader national framework where forests are seen as a national wealth and identity, playing vital economic, social, and ecological roles, particularly in rural and mountainous areas.

The timber industry supports local employment and economic activity, with furniture production being a notable segment that is competitive domestically and internationally. Bulgaria exports more timber furniture than it imports, indicating a growing market presence. However, the forest sector's contribution to GDP is modest, around 0.5% for forestry and 2.2% for the forest industry nationally, reflecting both market and non-market values such as environmental benefits.

Forest management in the Varna region of Bulgaria has a notable impact on employment and community development, particularly in rural and mountainous areas where forestry is a key economic activity. The sector provides jobs in timber harvesting, forest maintenance, and related industries such as furniture production, which supports local livelihoods and helps sustain rural communities.

The management practices emphasize sustainable forest use, which helps maintain forest resources and biodiversity, thereby supporting long-term economic stability and environmental health. Efforts to improve forest infrastructure and mechanize timber harvesting aim to increase efficiency and reduce illegal logging, which can threaten both forest health and local economies reliant on legal timber activities.

Moreover, forest-related activities contribute to social cohesion by supporting traditional livelihoods and fostering community identity linked to the forest landscape. Ecotourism development linked to forest areas is also promoted as a tool for revitalizing rural economies and conserving biodiversity, further enhancing community development.

However, challenges remain, including the need for better coordination in forest management, addressing illegal logging, and improving financial and administrative mechanisms to ensure that forest resources continue to support employment and social well-being effectively.

2.3. Woodworking in Bulgaria

Bulgaria has a rich history of woodcarving. Some of the oldest monuments of woodcarving in Bulgaria come from the 13th - 14th century. There are several types of woodcarvings in Bulgaria, as: pastoral woodcarving - it is defined as working on smaller wooden objects with a simpler shape for personal use related to the customs and activities of the craftsmen; woodcarving in churches - it is used in the interior design of Bulgarian churches. Domestic woodcarving - it is used for the decoration of the middle-class' homes, i.e. chests, canes and carved ceilings, providing status to the owner.

For centuries, wood has been an essential part of Bulgarian architecture, playing a crucial role in construction and design. Bulgarian's history is evident in many preserved old buildings from earlier centuries with notable examples including three-story all-wood constructions in Dryanovo, traditional wooden houses which exemplify the integration of natural materials into daily life in areas like Strandzha Nature Park, Stara planina and Rhodope Mountain. These structures, dating back to the 17th and 18th centuries, feature stone foundations with wooden upper stories constructed from oak timber. The design reflects the adaptation to local environmental conditions and showcases the aesthetic values of the time. The preservation of these wooden houses offers insight into the historical lifestyle and architectural ingenuity of the Bulgarian people. In the years following World War II, wooden structures in buildings are used only in roof structures.

2.3.1 Woodworking and Woodcarving in the Varna Pilot Region

The Varna Region is not only rich in natural resources, including forests, but also holds a deep cultural heritage that includes traditional woodworking and woodcarving. These crafts have historically been integral to both **religious architecture** and **domestic life**.

Ecclesiastical (Church) Woodcarving

Woodcarving in churches is one of the most prominent expressions of sacred art in the region, dating back to the **Bulgarian National Revival period** (18th-19th centuries). In Orthodox Christian traditions, particularly in Bulgaria, elaborately carved **iconostases**, **altars**, and **bishop's thrones** are central to church interiors. In the Varna Region, you can find several examples of beautifully detailed woodcarving in local churches and monasteries, often featuring floral motifs, geometric patterns, and religious symbols.

- These works were typically done by **local master carvers** or members of traveling artisan guilds.
- The craftsmanship reflects **Balkan traditions** blended with **Byzantine and Ottoman** influences.

Domestic Woodcarving

In traditional Bulgarian homes, especially in rural areas around Varna, wood was commonly used for both construction and decoration. Domestic woodcarving involved:

- Ornamented wooden ceilings (known as kakamak or sačak)
- Carved furniture, such as chests, cupboards, and beds
- Decorative doorframes and window shutters
- Household tools and utensils, like spoons and bowls, often adorned with symbolic carvings

These carvings were not merely decorative but also held **cultural and protective meanings**, often inspired by folklore, nature, and spiritual beliefs.



Photo: Woodworking done by Varna - based woodcarving Master Petko Petkov

Preservation and Revitalization

Today, these woodworking traditions are preserved in:

- Local ethnographic museums (e.g., the Ethnographic Museum in Varna)
- Craft schools and workshops that continue to teach traditional techniques
- **Tourism initiatives** and **cultural festivals** aimed at reviving and showcasing the region's intangible cultural heritage

The **Danube Wood(s) project** and similar regional initiatives offer opportunities to integrate these traditions into **sustainable cultural tourism**, supporting local artisans and preserving the identity of the region.

2.4. Summary of the regional assessment

This assessment highlights the multifaceted potential of the Danube Wood(s) forests in the Varna region and provides a foundation for targeted actions in the regional development plan that balance conservation, cultural heritage, and sustainable economic use. The key findings of the regional assessment are presented in the table below, grouped under three main themes.

Forest Resources and Biodiversity	Forest Coverage: Varna region has around 89,100 hectares
	of natural forest, representing about 24% of its land area.

	Forest Types: The area is dominated by deciduous species such as Turkey oak, oak, ash, lime, and hornbeam, with some coniferous plantations.
	Protected Areas: There are 41 nature protection areas, including reserves, natural parks (e.g., Golden Sands), and unique sites like the Stone Forest (Pobiti Kamani), all contributing to biodiversity and eco-tourism.
	Ecological Value: Forests provide habitat for diverse flora and fauna and play a crucial role in climate regulation, soil protection, and water management.
Cultural and Economic Potential	Wood Heritage: The region has a rich legacy of woodworking, traditional crafts, and historical use of local timber, which are integral to its cultural identity and tourism appeal.
	Tourism: Forests and wood heritage sites are increasingly recognized as assets for sustainable tourism development, with potential for new ecotourism products and thematic routes connecting the Danube and Black Sea regions.
Strategic Focus	Transnational Cooperation: Foster collaboration with other Danube and Black Sea regions to share best practices and jointly promote the Danube Wood(s) Route as a flagship cultural and ecological corridor.
	Sustainable Rural Development: Leverage forest resources to support rural livelihoods, green jobs, and balanced economic growth while ensuring long-term ecological sustainability.
	Digital Innovation: Develop interactive online platforms and databases to centralize information, promote tourism, and facilitate stakeholder engagement.

2.5. Challenges and opportunities

This section summarises the challenges and opportunities identified in Regional Analysis.

Challenges in the sector

Challenges in the sector include underdeveloped forest infrastructure, such as roads, which affects timber harvesting efficiency and leads to some forests being less harvested while others face overharvesting or illegal logging. The terrain is mountainous, making timber harvesting labour-intensive. Efforts to improve transparency and combat illegal logging have been introduced, including electronic public timber tenders.

The Common Danube Wood Strategy, developed jointly by the two Bulgarian project partners in Danube Wood(s) Route project with focus on forest and timbre in Bulgaria highlighted several critical gaps in the document and outlined challenges that need to be addressed, to enhance sustainable forestry and climate friendly and deforestation-free supply chains. These gaps and challenges are outlined briefly in the next table:

KEY GAPS AND CHALLENGES

3 Infrastructure Development

- **Gap:** Limited infrastructure, such as accommodations, trails, rest areas, and transportation networks, in forested and rural regions.
- Challenge: Enhancing accessibility while maintaining ecological balance. Poor road conditions and insufficient public transport hinder tourist movement in remote areas.

Marketing and Promotion

- Gap: Lack of a cohesive strategy to market wood-related tourism as a niche segment.
- **Challenge:** Raising awareness about Bulgaria's unique offerings, such as traditional woodcraft, wooden architecture, and forest-based wellness, among domestic and international audiences.

Preservation of Traditional Crafts

- **Gap**: Declining number of skilled woodcarvers and artisans due to aging populations and reduced interest among younger generations.
- **Challenge:** Encouraging the transfer of knowledge through education, apprenticeships, and government support while integrating crafts into tourism experiences.

3 Environmental Sustainability

- Gap: Risk of over-tourism or poorly managed tourism damaging fragile ecosystems.
- Challenge: Balancing tourism development with the conservation of forest biodiversity, especially in protected areas like Rila, Pirin, and Strandzha.

Seasonal Dependence

- **Gap:** Tourism in forested areas is concentrated in summer months, leaving gaps in revenue generation during off-seasons.
- **Challenge**: Developing year-round activities, such as winter trails, workshops, or forest therapy, to attract tourists in all seasons.

O Policy Framework

- Inadequate Policy Implementation: While there are national strategies aimed at promoting sustainable forestry and tourism, effective implementation remains as a gap.
- Challenge: Ensuring that policies are translate into actionable plans on the ground, which is critical for achieving sustainability goals.

Management and Governance Issues

Poor Forest Management:

- **Gap:** Current forest management practices are often criticized for being short-sighted, leading to overexploitation and degradation of forest ecosystems, which can undermine the sustainability of tourism that relies on healthy forests.
- **Challenge:** Introducing more ecologically friendly forest management practices with long-term vision for their exploitation, and afforestation.

Illegal Logging:

- **Gap:** The illegal logging poses a significant threat to forest resources, impacting biodiversity and the overall health of forest ecosystems. This not only affects conservation efforts but also diminishes the potential for sustainable tourism development.
- **Challenge:** Developing by the government more severe measures with fines for violators, to prevent illegal logging.

Insufficient funding

- Gap: The system of park directorates of nature parks and municipal museums and galleries are traditionally underfunded for their activities
- Challenge: To find or create new sources of funding for nature parks, municipal and state
 museums and galleries that would support the creation of a tourist route for the Danube
 forests and wood

Lack of information about the Danube forests and traditional wood crafts

- Gap Many tourists create their own programs for their visits. In Bulgaria, there is a lack of collected information accessible to tourists focused on forests and wood heritage
- **Challenge:** Within the framework of the current project, to create such a space on the Internet that would provide the necessary information

Coordination between public and private bodies

- **Gap:** Lack of coordination between government bodies, local communities, and private stakeholders to create cohesive tourism plans.
- Challenge: Ensuring all stakeholders work towards shared goals, particularly in protecting cultural and natural assets while fostering tourism growth.

Description Descriptio

- Gap: Insufficient use of digital tools and platforms to promote wood-related tourism.
- **Challenge**: Leveraging apps, virtual tours, and social media to enhance visitor engagement, provide information, and promote lesser-known destinations.

D Education and Awareness

- **Gap:** Limited awareness among local communities about the potential of wood-related tourism to drive sustainable economic growth.
- Challenge: Providing training and resources to locals to develop tourism-related skills, such as guiding, hospitality, and marketing.

O Climate Change Impact

- Gap: Changing weather patterns affecting forests and biodiversity.
- Challenge: Implementing adaptive forest management strategies to mitigate risks, such as tree diseases, forest fires, and loss of appeal due to environmental degradation.

Funding and Investment

- **Gap:** Insufficient investment in developing wood-related tourism infrastructure and experiences.
- Challenge: Securing funding from EU grants, private investors, and public-private partnerships to finance sustainable projects.

Integration with Sustainable Development Goals (SDGs)

- Gap: Insufficient consideration of SDGs for development of a sustainable wood-related tourism in Bulgaria
- Challenge: Aligning forestry-related tourism initiatives with broader SDG objectives can enhance their sustainability.

Opportunities for tourism

The extensive forest areas, protected reserves, and unique natural phenomena like the Stone Forest offer excellent **opportunities for ecotourism**. Hiking, bird watching, and nature photography are viable activities supported by the rich biodiversity and scenic landscapes.

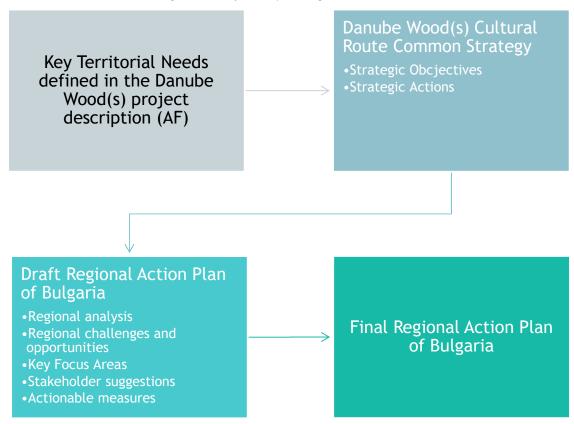
Forest parks and suburban forest massifs near the coast provide recreational spaces for locals and tourists. The presence of spa and health resorts within forested areas promotes **health tourism**, leveraging the clean air and tranquil environment of the forests.

The combination of natural reserves with cultural and historical sites enables development of **cultural** and educational tourism focused on natural heritage, archaeology, and traditional culture, enriching visitor experience.

The Regional Forest Directorate Varna emphasizes forestation and sustainable wood use, which supports long-term **conservation and responsible tourism development**. The integration of forest management with tourism can enhance local economies while preserving natural assets.

3. Strategic framework

The Danube Wood(s) RAPs have a well-defined methodological approach with the following stages:



To ensure clarity regarding practical implementation, the table below outlines the alignment of objectives among the Danube Wood(s) Project, the Danube Wood(s) Route Strategy, and the Regional Action Plan (RAP) for Varna, Bulgaria. Each RAP Key Focus Area must correspond directly to the overarching Strategic Actions and Objectives. All proposed measures are therefore organized under the relevant Focus Areas.

Standard, pre-defined RAP Key Focus Areas:

- **Preservation and Conservation Initiatives** Activities dedicated to protecting forests and safeguarding wood-based cultural heritage, including ecosystem restoration, reforestation programs, and promotion of traditional woodworking skills.
- **Economic and Tourism Development** Establishing infrastructure and tourism products that showcase natural and cultural resources linked to wood, such as workshops, heritage routes, and eco-tourism experiences.
- Educational and Awareness Campaigns Enhancing knowledge among communities and stakeholders about sustainable forest practices and the significance of wood-related heritage.

Revised RAP Key Focus Areas tailored to regional needs and challenges:

Protection and Conservation of Local Wood Heritage - Comprehensive efforts to preserve
natural forest environments and maintain cultural practices related to wood, encompassing
biodiversity protection, ecosystem rehabilitation, and the revitalization of wooden crafts and
architecture.

- Advancement of Wood-Based Ecotourism Designing and promoting environmentally responsible tourism opportunities that celebrate forest landscapes and wood craftsmanship, boost rural development, and encourage environmental stewardship through interactive learning and authentic visitor experiences.
- Sustainable Forestry and Wood-Based Economy Development Supporting an innovative forestry sector resilient to climate challenges by promoting sustainable resource management, participation in carbon markets, and the adoption of eco-friendly technologies across wood-processing industries.
- Capacity Building and Awareness for Sustainable Forest and Wood Heritage Management Enhancing public engagement and professional expertise through targeted education,
 community partnerships, interdisciplinary cooperation, and accessible platforms for
 knowledge exchange about sustainable forestry and wood heritage values.

2. Figure: Strategic framework of the Regional Action Plan (RAP)

Strategic Objectives	Danube Wood Cultural Route Strategic Actions	RAP Key Focus Area
Key Territorial need: Valorising cultural heritage related to wood through stakeholder engagement and knowledge-sharing Danube Wood Cultural Route Strategy Objective: Protect and restore biodiversity and natural resources.	 Promote the protection of wooden architectural heritage, traditional craftsmanship, and culturally significant forest sites. Reinforce afforestation initiatives and actions that support biodiversity to safeguard forest ecosystems. Create centres, exhibitions, fairs, and hands-on workshops dedicated to presenting traditional woodworking skills and tools. Build cross-border collaborations for shared efforts in conserving wood-related heritage resources. 	Preservation and Conservation of Local Wood Heritage
Key Territorial need: Developing new ecotourism structures and services to drive sustainable regional growth. Danube Wood Cultural Route Strategy Objective: Develop sustainable tourism and create the cultural route.	 Develop and implement the Danube Wood Cultural Route by identifying heritage locations and planning visitor pathways. Improve tourism facilities such as eco-parks, visitor information hubs, and themed forest trails. Design integrated tourism offers that combine nature experiences, cultural site visits, and participation in traditional woodcraft activities. Host wood-focused festivals and community gatherings to draw visitors and celebrate local artisanship. 	Promotion of Wood-Based Ecotourism

Strategic Objectives	Danube Wood Cultural Route Strategic Actions	RAP Key Focus Area
Key Territorial need: Encouraging innovation in ecotourism and sustainable use of wood resources. Danube Wood Cultural Route Strategy Objective: Develop a sustainable forest-based economy.	 Promote accredited sustainable forest management standards and responsible forestry practices. Support small and medium-sized enterprises in wood-based sectors, including sustainable furniture making, bio-materials, and artisanal woodworking. Enable participation in carbon credit systems and provide financial mechanisms that encourage environmentally responsible forestry. Encourage innovation and scientific progress in 	Sustainable Forestry and Wood-Based Economy Development
Key Territorial need: Enhancing the visibility of Danube forests and their cultural heritage. Danube Wood Cultural Route Strategy Objective: Raise awareness and build community engagement.	 Integrate education on wood heritage and sustainable forestry into both school curricula and vocational training programs. Conduct local workshops and awareness campaigns highlighting the value of biodiversity, conservation, and cultural forest heritage. Promote the creation of digital solutions — such as apps, online platforms, and multimedia resources — to advocate for sustainable wood use and preservation of traditional crafts. Establish collaborative networks among researchers, forestry experts, tourism and mountain guides, and decision-makers to ensure that scientific knowledge is applied effectively in forestry practice. 	Education and Awareness for Sustainable Forestry and Wood Heritage

4. Actionable measures

The following tables showcase in two different ways the identified actionable measures in in Bulgaria, similar to the regional actions plans, elaborated in the other project partners' countries. Two of these measures will be elaborated further, based on the stakeholder reviews, and suggestions.

3. Figure Actionable Measures addressing the identified challenges

Na	Actionable Measures	DAD Voy Fogus Areas	
No.	Actionable Measures	RAP Key Focus Areas	
1	a) Implement afforestation and ecosystem restoration initiatives focused on native species to improve resilience to climate impacts and pest threats.	Preservation and Conservation of Local Wood Heritage Coordinated efforts to protect native forest ecosystems and	
	b) Enhance forest conservation schemes by preserving provenance areas, seed-producing stands, and genetic reserves for forestry species.	maintain wood-related cultural traditions through ecosystem restoration, biodiversity protection, and the renewal of	
	c) Adopt wildlife-friendly forest management approaches that balance timber harvesting with landscape and habitat conservation.	traditional woodworking techniques and wooden architectural heritage.	
2	Biodiversity and Ecosystem Conservation		
	d) Apply sustainable, close-to-nature forest management practices that prioritize long-term ecological integrity.		
	e) Improve monitoring systems to identify climate-induced forest damage and track invasive species expansion.		
	f) Safeguard biodiversity-rich forest zones, especially those within Natura 2000 and other regional protected areas.		
3	Cultural Heritage Preservation		
	g) Support the revival of traditional woodcrafts through financial assistance and improved market access for artisans.		
	h) Incorporate heritage woodworking skills into modern sustainable forestry value chains.		
	 i) Promote tourism experiences that highlight wooden craftsmanship and historic forest-related cultural landscapes. 		
4	Economic and Tourism Development	Promotion of Wood-Based	
	 j) Develop eco-themed tourism routes featuring guided visits, interactive installations, and educational interpretation. 	Ecotourism Creation and enhancement of	
	k) Promote environmentally responsible tourism initiatives that support forest conservation and strengthen rural livelihoods.	sustainable tourism experiences that showcase forest environments and wood-based cultural identity, contributing to	
5	Sustainable Infrastructure for Forestry and Tourism	rural development and fostering	
	l) Invest in environmentally sustainable facilities such as visitor centres, research hubs, eco-parks, and forestry education trails.	environmental responsibility	

No.	Actionable Measures	RAP Key Focus Areas	
	m) Encourage environmental low-impact transport solutions — including electric shuttles, cable systems, and cycling routes — to reduce emissions and protect natural areas.	through hands-on learning and immersive visitor activities.	
	n) Implement responsible land-use planning to prevent environmental pressures from increased tourism activities		
6	Sustainable Forestry Economy and Innovation	Sustainable Forestry and	
	o) Facilitate engagement in carbon markets and ecosystem service compensation schemes to incentivize sustainable forestry.	Wood-Based Economy Development Advancing a forward-looking,	
	p) Stimulate technological advancements in efficient wood processing and the innovative use of wood residues.	climate-adaptive forestry sector that ensures economic growth while maintaining ecological	
	q) Promote green innovation in wood-based sectors, including sustainable construction materials and eco-conscious product development.	balance, through sustainable resource management, participation in carbon-based financial mechanisms, and the adoption of innovative green technologies within wood industries.	
7	Community Engagement on Forest Protection	Education and Awareness for	
	r) Host public workshops and community events to raise awareness of sustainable forestry practices and climate adaptation.	Sustainable Forestry and Wood Heritage Improving awareness and expertise on sustainable forest stewardship and wood heritage by delivering focused educational initiatives,	
	s) Launch targeted media campaigns to communicate forest benefits such as carbon storage, biodiversity value, tourism potential, and public well-being.		
	t) Strengthen stakeholder cooperation mechanisms to empower local participation in forest stewardship.	encouraging community participation, reinforcing multi- sector collaboration, and	
8	Forest-Based Educational Programs	expanding access to tools that	
	u) Incorporate sustainable forest management and climate resilience principles into formal educational curricula.	support knowledge exchange.	
	v) Provide outdoor and experiential learning opportunities through dedicated forest-based school initiatives.		
	w)Expand funding for forestry research and nature-learning programs.		
9	Stakeholder Training and Cross-Sector Collaboration		
	 x) Deliver specialized training for forestry practitioners, landowners, and policymakers on adaptive management techniques. 		
	y) Enhance cooperation among research institutions, forestry professionals, and authorities to ensure scientific knowledge is effectively applied.		
	z) Develop digital knowledge-sharing tools — such as regional platforms, apps, and tutorial videos — to support the dissemination of best practices in sustainable forestry.		

4. Figure: Actionable measures building on Strategic Actions

Strategic Actions	Actionable Measures
1. Promote the protection of	g) Support the revival of traditional woodcrafts through financial assistance and improved market access for artisans.
wooden architectural heritage, traditional craftsmanship, and	h) Incorporate heritage woodworking skills into modern sustainable forestry value chains.
culturally significant forest sites.	i) Promote tourism experiences that highlight wooden craftsmanship and historic forest-related cultural landscapes.
2. Reinforce afforestation initiatives and actions that	a) Implement afforestation and ecosystem restoration initiatives focused on native species to improve resilience to climate impacts and pest threats.
support biodiversity to safeguard forest ecosystems.	b) Enhance forest conservation schemes by preserving provenance areas, seed-producing stands, and genetic reserves for forestry species.
3. Create centres, exhibitions, fairs, and hands-on workshops dedicated to presenting traditional woodworking skills and tools.	h) Incorporate heritage woodworking skills into modern sustainable forestry value chains.
4. Build cross-border collaborations for shared efforts in conserving wood-related heritage resources.	i) Promote tourism experiences that highlight wooden craftsmanship and historic forest-related cultural landscapes.
5. Develop and implement the Danube Wood Cultural Route by identifying heritage locations and planning visitor pathways.	j) Develop eco-themed tourism routes featuring guided visits, interactive installations, and educational interpretation.
	l) Invest in environmentally sustainable facilities such as visitor centres, research hubs, eco-parks, and forestry education trails.
 Develop / Improve tourism facilities such as eco-parks, visitor information hubs, and themed forest trails. 	m) Encourage environmental low-impact transport solutions — including electric shuttles, cable systems, and cycling routes — to reduce emissions and protect natural areas.
	n) Implement responsible land-use planning to prevent environmental pressures from increased tourism activities.

Strategic Actions	Actionable Measures
7. Design integrated tourism offers that combine nature experiences, cultural site visits, and participation in traditional woodcraft activities.	k) Promote environmentally responsible tourism initiatives that support forest conservation and strengthen rural livelihoods.
8. Host wood-focused festivals and community gatherings to draw visitors and celebrate local artisanship.	i) Promote tourism experiences that highlight wooden craftsmanship and historic forest-related cultural landscapes.
9. Promote accredited sustainable forest management standards and responsible forestry practices.	d) Apply sustainable, close-to-nature forest management practices that prioritize long-term ecological integrity.
10. Support small and medium- sized enterprises in wood-based sectors, including sustainable furniture making, bio-materials, and artisanal woodworking.	 p) Stimulate technological advancements in efficient wood processing and the innovative use of wood residues. q) Promote green innovation in wood-based sectors, including sustainable construction materials and ecoconscious product development.
11. Enable participation in carbon credit systems and provide financial mechanisms that encourage environmentally responsible forestry.	o) Facilitate engagement in carbon markets and ecosystem service compensation schemes to incentivize sustainable forestry.
12. Encourage innovation and scientific progress in sustainable wood construction technologies	p) Stimulate technological advancements in efficient wood processing and the innovative use of wood residues.
13. Integrate education on wood heritage and sustainable forestry into both school curricula and vocational training programs	u) Incorporate sustainable forest management and climate resilience principles into formal educational curricula. v) Provide outdoor and experiential learning opportunities through dedicated forest-based school initiatives. w) Expand funding for forestry research and nature-learning programs.
14. Conduct local workshops and awareness campaigns highlighting the value of biodiversity, conservation, and cultural forest heritage.	r) Host public workshops and community events to raise awareness of sustainable forestry practices and climate adaptation. s) Launch targeted media campaigns to communicate forest benefits such as carbon storage, biodiversity value, tourism potential, and public well-being.

Strategic Actions	Actionable Measures
	t) Strengthen stakeholder cooperation mechanisms to empower local participation in forest stewardship.
15. Promote the creation of digital solutions — such as apps, online platforms, and multimedia resources — to advocate for sustainable wood use and preservation of traditional crafts.	s) Launch targeted media campaigns to communicate forest benefits such as carbon storage, biodiversity value, tourism potential, and public well-being.
16. Establish collaborative networks among researchers, forestry experts, tourism and mountain guides, and decision-	x) Deliver specialized training for forestry practitioners, landowners, and policymakers on adaptive management techniques.y) Enhance cooperation among research institutions, forestry professionals, and authorities to ensure
makers to ensure that scientific knowledge is applied effectively in forestry practice.	scientific knowledge is effectively applied. z) Develop digital knowledge-sharing tools — such as regional platforms, apps, and tutorial videos — to support the dissemination of best practices in sustainable forestry.

The next section is a structured elaboration of the two actions, which were selected based on their short-term feasibility while maximising long-term effect based on stakeholder suggestions.

4.1. Action 1- Restoring and placing new tourist marks along the wood areas in the region to preserve local wood heritage

4.1.1. Relevance of the measure

Restoring and placing new tourist marks along the wood areas in the Varna region—especially as part of the Danube Woods cultural route—directly supports the key focus area of preservation and conservation of local wood heritage in several ways.

The action will help to **promote responsible tourism** as the clearly marked routes guide visitors along designated paths, reducing the risk of unintentional damage to sensitive woodland areas and heritage sites. This helps prevent trampling of undergrowth, disturbance of habitats, and erosion, all of which are crucial to conserving the local wood environment.

It also contributes to **raising tourist awareness**. Tourist marks often include interpretive signs or information points that educate visitors about the significance of the local wood heritage, unique flora and fauna, and the importance of conservation. Increased awareness fosters a sense of stewardship among both locals and tourists.

The action **supports heritage Identity** as well. By highlighting and making accessible the cultural and natural landmarks within the woods, the action helps preserve the intangible heritage associated with the region—such as traditional uses of the woods, folklore, and historical routes.

Last but not least, it **facilitates monitoring and maintenance**. Well-marked routes make it easier for local authorities and conservationists to monitor visitor flow, detect issues (such as illegal logging or littering), and maintain the integrity of the wood heritage.

4.1.2. Nature of the action

The proposed action involves two main components.

1. Restoration of existing tourist marks along wood touristic itineraries

This first component includes i) inspection of the current tourist marks along established routes for visibility, accuracy, and physical condition, ii) repair, repainting, or replacing damaged or faded marks to ensure they are clear and consistent, and iii) updating information where necessary to reflect current routes and heritage features.

2. Placement of new tourist marks in wood related routes with touristic potential

This second component include i) identification of new or previously unmarked routes of cultural or ecological significance within the wood areas, ii) installing new marks and signposts at strategic locations, such as trailheads, intersections, and points of interest, iii) ensuring that the design and placement of marks are in harmony with the natural environment and do not detract from the landscape, and iiii) coordination with local stakeholders, including forestry departments, heritage organizations, and community groups, to align the action with broader conservation goals.

The activities are typically part of a broader management framework that includes regular maintenance, visitor education, and collaboration with conservation and cultural heritage bodies. The overall goal is to balance increased access and enjoyment of the woods with the long-term preservation of their ecological and cultural value.

4.1.3. Activities performed under the Action

The proposed action includes to sub-actions:

4.1.3.1 Restoring the marks on part of the wood related touristic itinerary with length of 6 km, starting from residential area Vladislavovo in Varna to the to the Three Watermills, Dolishte Village.

The activities, to be performed under this sub-action could be outlined in several steps and phases.

- Preliminary Survey and Assessment Conducting a detailed field survey of the existing 6 km route to identify all current marks, their condition, and locations. Then mapping out the route precisely, noting points where marks are missing, damaged, or unclear. Follow assessment of any natural or man-made changes along the path that may require rerouting or additional signage.
- Planning and Design It includes develop a restoration plan that specifies the types of marks
 to be used (painted signs, wooden posts, informational panels) followed by design of the
 marks to be durable, weather-resistant, and visually consistent with local heritage and natural
 surroundings. Preparing a plan for new marks where needed to improve route clarity and
 visitor experience.
- Material Procurement and Preparation It will include activities related to sourcing environmentally friendly and sustainable materials for signs and posts as well as preparing tools and equipment for installation and restoration.
- **Restoration and Installation** This phase includes a couple of activities related to i) cleaning, repairing, repaining, or replacing existing marks along the 6 km route; ii) installing new marks

at key points such as trailheads, intersections, and points of interest, and iii) ensuring that the marks are visible, clear, and placed in a way that minimizes environmental impact.

4.1.3.2 New marking along the 20 km wood route between the villages Asparuhovo and Tsonevo with placement of 1 large information sign and 100 small signposts on the newly marked section.

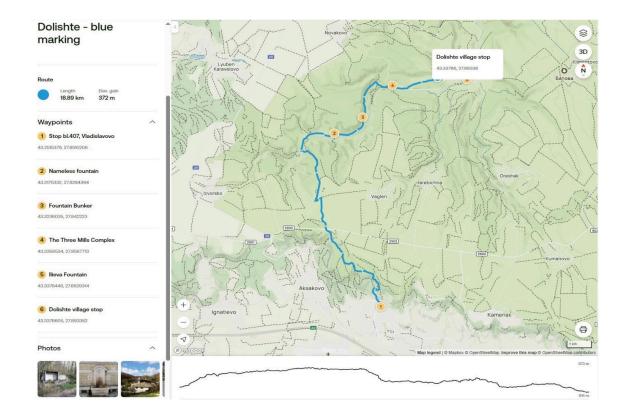
The activities, to be performed under this sub-action, are similar to the described actions in 4.1.3.1 with small changes. In order to avoid repetitions, the table below presents in a systematic way the necessary activities for implementation under this sub-activity. The table also includes additional actions that are optional. They are related to the stakeholder's coordination, quality control and maintenance planning. The last three activities are presented only with a brief description.

Activity	Description
Route Survey	Detailed mapping and condition assessment of the 20 km section
Design and Planning	Creating signpost and information board designs, selecting materials
Stakeholder Coordination	Engaging authorities and obtaining permits, where applicable
Materials Procurement	Sourcing durable materials for signs and posts
Installation	Erecting 1 large info sign and 100 small signposts along the route
Marking	Applying paint marks and directional arrows as needed
Quality Control	Verifying visibility and clarity of markings
Maintenance Planning	Establishing regular upkeep and monitoring procedures

Following the above steps will ensure that after activity realisation, the marked route is safe, informative, and respectful of the natural and cultural environment.

4.1.4. Potential Danube Wood(s) Cultural Route points involved

The sub-action 4.1.3.1 will integrate a **new wood touristic route Vladislavovo - Dolishte** - blue marking, related to history and culture in Varna region, along significant nature trails and cultural heritage sites within the Danube Wood(s) Route:



• Complex "The Three Mills" - located 17 km from the town of Varna and 2 km from the village of Dolishte. The location of the complex is impressive among the picturesque nature of the Batova area, which is a forest massif sheltering rare plant and animal species included in the Red Book of Bulgaria, and some of them are of European conservation importance. Located among the centuries-old forest, along the bank of the Batova River, from the complex a beautiful view is revealed to visitors.

Legends say that on the site of the restaurant "The Three Mills" there was a building that served the Turkish authorities for minting coins. It is no secret that the area around the restaurant arouses the interest of treasure hunters. Later, three mills were built there. http://www.tritevodenici.com/gb



■ Sites Bezymmena Cheshma, Bunkera Fountain and Petrova Fountain - located along the tourist pedestrian route Vladislavovo - Dolishte - blue marking, give an idea of the local culture and history of the region. Suitable for eco-tourism in forests. https://www.rodnibalkani.com/?page_id=2023

The sub-action 4.1.3.2 will integrate a new wood touristic route Asparuhovo village - Wonder Rocks, related to history and culture in Varna region, along significant nature trails and the phenomenon of the Wonder Rocks within the Danube Wood(s) Route:



- The Wonderful Rocks They are a collection of several pointed rock towers located on the shore of the Tsonevo Dam the third largest dam in Bulgaria, built in 1974 on the Luda Kamchia River, the main tributary of the Kamchia River one of the largest rivers in Bulgaria.
 - The natural phenomenon is a wonderful place to practice extreme and alternative outdoor sports such as rock climbing, mountaineering, mountaineering and forest orienteering. The surrounding area is a frequently visited place for conducting green schools and summer camps to gain experience and training through experience in working with a compass and map, survival in nature, acquaintance with herbs and medicinal plants, rare and protected animals, as well as knowledge of environmental protection and first aid.
- Asparuhovo village or Chenge, as the locals call it, is not one of the typical Bulgarian villages. It is located at the foot of the Balkan Mountains, next to the Luda Kamchia River and on the northern shore of the Tsonevo dam. Asparuhovo is a lively village that attracts many tourists from Bulgaria and abroad all year round. Here is the natural phenomenon "The Wonderful Rocks", the areas "The Monastery" and "The City", which are shrouded in historical legends. Rural and fishing tourism are developed.
 - During the construction of the Tsonevo dam, most of the houses in the village of Chenge were flooded by the water, and the village was moved to a higher place. At the bottom of the dam the **local church "St. Petka"** was supposed to remain, but the people took it out stone by stone and built it in 1857. in the new village. An architectural and ethnographic complex was also established near it, through which Asparuhovo keeps alive the old Bulgarian crafts weaving and pottery, and its unique folklore traditions and customs. Today, the restored houses of the Ovchaga complex are open all year round and offer coziness and tranquility to their guests, immersing them in the unique atmosphere of bygone eras.

South of the village of Asparuhovo and the Tsonevo dam is **the Grada peak**, on which is the fortress "Ovchaga", which in 1277-1279. fought on the side of Tsar Ivaylo against the Byzantine commander Michael Glava. From the top there is a view in all directions.



4.1.5. Stakeholders involved

The implementation of this action will involve a wide range of stakeholders committed to sustainable floodplain management and community engagement.

Key groups of participants include state and local forestry organizations, municipalities, directorate of the Natural Park "Golden Sands", tourist and environmental NGOs, hiking, cycling, and orientation's clubs, green schools, organisers of summer camps and other stakeholders with connection to the forest and woods.

In addition, various agricultural enterprises and small to medium-sized businesses engaged in forestry, water management, and ecotourism will be encouraged to participate.

To ensure ensuring smooth collaboration among all stakeholders, the coordination and facilitation of the action will be led by Varna Economic Development Agency and the Association of Parks in Bulgaria, with the assistance and support of local and regional organizations, namely:

- ✓ Aksakovo Municipality
- ✓ Tourist Society Native Balkans Varna
- ✓ Velo Club Ustrem Varna
- ✓ Black sea route association Varna
- ✓ Club for extreme tourism
- ✓ Club for nature protection.

4.1.6. Timeframe

Preparation: 2 month (logistics, outreach, material purchase)

Implementation: 1 month

4.1.7. Indicative costs

The following costs are estimated for the two sub- activities - for new making (Asparuhovo- Wonedr Rocks) and restoration of existing marks (along the blue itinerary Vladislavovo - Dolishte):

 Materials for marking (paint, brushes, gloves, bags, prorected masks and covers, first aid pharmacy): 800 EUR

Marking signs 100 pcs.: 1,000 EUR

Information tables - design and production 3 pcs.: 600 EUR

Mineral water and snacks for participants for a day in forest: 400 EUR

Materials and participants' transportation: 200 EUR

Total estimated cost: 2,500 EUR

4.1.8. Output and result indicators

Number of km with new marks produced: up to 5

Number of km with restored marks: up to 5

Number of participants at events: 20 (10 per event)

Number of tourist itineraray marked: 2

Number of sites visited for monitor & planning: 6

4.2. Action 2 - Promote cultural heritage tourism centred around woodcraft and historic forest-based communities

4.2.1. Relevance of the measure

Woodworking has been a cornerstone of Bulgaria's cultural identity and economic growth for centuries, deeply intertwined with the lives of forest-based communities across the country. Although industrialization and shifting social dynamics have led to a decline in many traditional wood-related trades, the rich heritage of woodworking craftsmanship and sustainable forest management continues to thrive in pockets of rural Bulgaria. Historical practices—from the structured guild systems of urban carpenters to the independent artisans of the countryside—have contributed to a vibrant cultural legacy that reflects both skill and a profound respect for natural resources. Despite this, the gradual decline in the use of timber in modern architecture and the reduced prominence of traditional woodworking techniques pose significant challenges to preserving these artisanal skills. To ensure the survival and revitalization of Bulgaria's woodworking heritage, there is a growing need to integrate traditional knowledge with contemporary sustainable practices, promote timber-based construction as a green alternative, and support local artisans through education, tourism, and cultural initiatives. This approach not only safeguards an invaluable cultural asset but also contributes to sustainable rural development and environmental stewardship.

This action seeks to revitalize and celebrate Bulgaria's rich woodworking heritage by positioning it as a cornerstone cultural tourism attraction within the Varna region and across the country. Central to

this effort is the creation of a comprehensive, user-friendly database that documents woodworking-related sites, traditional craftspeople, and their unique skills. Complemented by an interactive online portal, designed for both promotional and educational purposes, the project aims to raise public awareness and engagement with woodcraft traditions. Importantly, this initiative envisions a strategic extension and connection of the existing Danube Wood(s) Route with the emerging Black Sea Route, thereby creating a seamless transnational cultural corridor that links diverse forest heritage sites and communities. This expanded route will not only enhance cross-border cooperation and knowledge exchange but also attract a broader spectrum of tourists interested in sustainable cultural experiences. By fostering collaboration among stakeholders from multiple countries, the project supports the long-term sustainability of woodworking traditions, encourages economic development in rural areas, and strengthens the shared identity of the Danube and Black Sea regions as vibrant centres of wood heritage and craftsmanship.

Successful implementation of this initiative requires the active participation and collaboration of a broad range of regional and national stakeholders. These include local governments, cultural institutions, forestry organizations, national statistical offices (NSOs), and businesses whose activities and interests span both the Danube territory and the Black Sea basin. By fostering strong partnerships across these diverse sectors, the project can leverage shared expertise, resources, and networks to enhance the visibility and recognition of the Danube Wood(s) Route. This collaborative approach will not only strengthen the route's profile among key stakeholders but also increase its appeal to potential tourists from neighbouring EU countries and beyond. Moreover, engaging these stakeholders ensures that the development of the route aligns with regional economic, cultural, and environmental priorities, promoting sustainable tourism and cross-border cooperation. Ultimately, this inclusive framework will help position the Danube Wood(s) Route as a flagship cultural corridor that celebrates shared heritage while driving socioeconomic growth throughout the wider Danube and Black Sea regions.

4.2.2. Nature of the action

The nature of the proposed action includes creating an interactive online website - turned later on into a portal, with comprehensive databases of tourist cultural, historic, and natural sites, alongside profiles of woodcraft masters and training opportunities related to the Danube Woods, with an extension towards the Black Sea region.

This action represents a strategic digital innovation aimed at enhancing cultural tourism and heritage preservation in the Varna region and beyond. By developing an accessible, user-friendly online portal, the project will centralize and showcase a wealth of information on the region's rich wood heritage, including significant cultural, historic, and natural sites, as well as the skilled artisans and educational programs that sustain traditional woodworking crafts. The portal will serve dual promotional and educational purposes, providing tourists, researchers, and local communities with interactive tools to explore, learn about, and engage with the wood heritage along the Danube Woods Route and its planned extension towards the Black Sea region.

The initiative aligns with broader transnational efforts within the Danube region to foster sustainable cultural tourism through digital platforms that connect diverse heritage assets and stakeholders across countries. By integrating data and narratives from both the Danube and Black Sea basins, the portal will facilitate cross-border collaboration, enhance the visibility of lesser-known heritage sites, and contribute to a cohesive cultural corridor that attracts a wider audience from neighbouring EU countries and beyond. It will also support capacity building by linking woodcraft's masters with potential trainees and tourists interested in experiential learning, thus promoting the long-term sustainability of traditional skills.

Furthermore, this digital infrastructure will complement existing regional and European projects focused on cultural route development, sustainable tourism, and heritage interpretation, such as the Danube Culture Platform and Danube Tourism Laboratories, by providing a dedicated space for the

wood heritage sector. Ultimately, the portal will help position Varna and the surrounding region as a key hub in a vibrant network of cultural routes, fostering economic development, cultural exchange, and environmental stewardship in line with the objectives of the Regional Action Plan.

4.2.3. Activities performed under the Action

This action focuses on creating a comprehensive digital portal that integrates databases of cultural, historic, and natural tourist sites, alongside detailed profiles of woodworking masters and training opportunities connected to the Danube Wood(s) Route and its follow-up connection with the Black Sea region. The portal will serve as a central hub for promotional, educational, and networking purposes, designed to enhance visibility and accessibility of the region's rich wood-related heritage and ecotourism potential. So, the **key activities and steps** to perform the action are outlined below.

- 4.2.3.1 Inventory and Data Collection: Systematic gathering and verification of data on wood-related cultural and natural heritage sites, traditional woodworking artisans, workshops, and training programs across the Danube and Black Sea regions. This involves collaboration with local stakeholders, cultural institutions, forestry organizations, and tourism agencies to ensure accuracy and comprehensiveness.
- 4.2.3.2 Database Development: Designing and building user-friendly, searchable databases that categorize sites and craftspeople by location, type, and thematic relevance. This will enable tourists, educators, and researchers to easily explore and plan visits or learning experiences.
- 4.2.3.3 Content Creation and Curation: Developing rich educational and presentation materials, including high-quality photos, descriptive texts, interactive maps, and videos showcasing woodworking techniques, cultural narratives, and natural landscapes. These multimedia elements will engage users and provide immersive insights into the "wood civilization" heritage.
- 4.2.3.4 Portal Design and Technical Implementation: Creating an intuitive, multilingual online portal optimized for various devices, integrating interactive features such as virtual tours, event calendars, and user feedback systems. The portal will also support promotional campaigns and facilitate connections between tourists, artisans, and training providers.
- 4.2.3.5 Promotion and Outreach: Coordinating with regional and transnational partners to promote the portal through social media, tourism networks, and cultural events, thereby increasing awareness and visitor engagement across the Danube and Black Sea basins.
- 4.2.3.6 Sustainability and Maintenance: Establishing mechanisms for regular updates, quality control, and stakeholder involvement to ensure the portal remains relevant, accurate, and responsive to evolving tourism and heritage preservation needs.

From a technical point of view, developing the interactive online portal using WordPress - one of the most popular, open-source content management system (CMS) used to build and manage websites, involves the following key steps and components:

Technical aspect	Description
Platform Setup	Use of WordPress CMS for flexible, user-friendly portal development and easy content management.
Database Integration	Utilizing WordPress MySQL database with Custom Post Types and taxonomies to organize site and craft data.
Content Management	Manage and update text, photos, videos, and educational materials via WordPress admin interface.

Technical aspect	Description
Interactive Features	Adding route maps, itineraries, event calendars, and multimedia galleries using specialized plugins.
Multilingual Support	Implementing multilingual plugins (e.g., WPML) to provide content in multiple languages.
SEO and Performance	Using SEO plugins and optimize design for fast loading and mobile responsiveness.
Security and Maintenance	Regularly updating, SSL certificates, backups, and security plugins to protect the portal.
User Interaction & Analytics	Enabling feedback forms, social media integration, and use analytics tools to monitor visitor behavior.

This table summarizes the key technical actions for developing and maintaining the web-portal effectively using the WordPress.

4.2.4. Potential Danube Wood(s) Cultural Route points involved

- THE PETRIFIED FOREST (The Stone Forest): It is a natural phenomenon and protected area, containing seven large and several separate small groups of stones, located on the north and south from the Beloslav Lake, 18 km west of Varna. These are numerous limestone pillars as high as 10 m, hollow or solid cylinders, truncated cones and single rocks and cliffs. "Stone Forest" is the only place in Bulgaria where the archaeologists found evidence of human life in the Mesolithic.
- RESIDENCE EUXINOGRAD near Varna The complex includes the Palace of Prince Ferdinand a piscuresque house in Bulgarian Revival style, 800 decare park with rare trees and species, a winery, and the ruins of the late abcient fortress Kastrisi. More info https://visit.varna.bg/en/euxinograde.htm
- **ECOPARK** near Varna The University Botanic Garden in the city of Varna is the first Eco-Park in the country and combines in itself both man-made and natural ecosystems. The park lies on an area of 36,0 ha. The Arboretum includes more than 300 species of exotic trees and shrubs, the grass plants it hosts are more than 100 species, and the collection of irises counts more than 250 varieties. It is truly a place where one gets acquainted with interesting plant and animal species, a place for walks and outdoor recreation. It symbolizes Nature the way we want to preserve it for the future. More info- https://www.ubg-bg.com/en-info-ubg-varna.html
- GOLDEN SANDS NATURAL PARK https://parkzlatnipiasaci.com/ is the smallest (13.2 sq.km) of the 11 nature parks in the country. It is located 17 km northeast of the town of Shumen. Varna. It is located parallel to the sea coast and surrounds the resort complex of the same name. The length of the park is 9.2 km, and the average width is 1.2 km. There are several thematic routes for visiting in the park, included in the map of the park https://parkzlatnipiasaci.com/wp-zlatni-pyasatsi.pdf
- ALADZHA MONASTERY It is the most famous medieval rock monastery on the Bulgarian Black Sea coast, inhabited by hermit monks in the 13th 14th century. The premises of the monastery are carved on two levels in a limestone rock almost 40 meters high. https://visit.varna.bg/bg/aladzha_monastery_2.html

■ RESERVE KAMCHIA - It is located in the lower reaches of the Kamchia River (in the Kamchia Sands area), the lands of the municipalities of Avren and Dolni Chiflik. The forest is called longoz and the purpose of the reserve is to preserve its natural appearance. The forest in some places reaches up to 50 m in height. In the dense forest, about 40 species of trees and various types of shrubs and plants are found, among them lianas, marsh snowdrop and lilies. 26 species of small mammals and 258 species of birds have been found in the reserve.

4.2.5. Stakeholders involved

The action related to development of the portal will be carried out by VEDA experts. However, the action will engage a diverse set of stakeholders to ensure effective implementation and regional collaboration related to creation and updating portal contents in terms of its enrichment with new data, phots, videos, presentations and others.

4.2.6. Timeframe

- Preparation: 3 months (databases development, design of the portal).
- Implementation: 6 months (site visits and digital content production).
- Maintenance, and promotion: Ongoing (portal updates, collaboration with national and European cultural route initiatives).

4.2.7. Indicative costs

- Database development and online portal: 8,000 EUR
- Video and photo production, using new technologies, incl. UAV & AI: 4,000 EUR
- Expert fees and educational material preparation: 5,000 EUR
- Marketing and outreach: 1,000 EUR
 Total estimated cost: 16,000 EUR

4.2.8. Output and result indicators

- Number of woodworking heritage sites documented: 15
- Number of traditional woodcraft professions showcased: 5
- Online platform reach (visitors per year): 500

5. Implementation plan and monitoring system

5.1. Monitoring framework

To ensure the effectiveness of sustainable forest management and cultural heritage protection, it is essential to develop a comprehensive monitoring system. Appropriate indicators and metrics help objectively assess the progress and efficiency of Actionable measures.

5.2. Evaluation plan

To ensure the effectiveness of actions, a well-developed evaluation plan is essential, enabling the regular review and fine-tuning of outcomes:

- Prepare annual reports on the progress of strategic objectives.
- Hold regular consultations with stakeholders to evaluate results and determine necessary adjustments.
- Involve independent experts to ensure the credibility of evaluations.
- Conduct impact assessments to analyse long-term sustainability and economic effects.

5.3. Action indicators

The table below shows the measurable indicators for the implementation of the actions:

Measure (number)	Indicator		How (method)	PP or another organization	
	Measurement unit	Value			
Action 1.1	Number of km with restored marks	5	A summary on marking of itinerary 1	VEDA & APB	
Action 1.2	Number of km with new marks placed	5	A summary on marking of itinerary 2	VEDA & APB	
Action 1	Number of participants	20	Record of participants.	VEDA & APB	
Actions 1	Number of tourist itinerary marked	2	Evidence on improvements of the itinerary	VEDA & APB	
Action 1	Number of sites visited for monitor & planning	6	A summary report on visited sites	VEDA & APB	
Action 2	Number of woodworking heritage sites documented	15	Document regional wood- related industries and key locations of traditional craftsmanship.	VEDA & APB	
Action 2	Number of woodworking heritage sites documented	5	Document regional wood- related masters/ woodcarvers, and they key locations	VEDA & APB	
Action 2	Online web-platform reached	500	Statistics from Google Analytics for website /web- platform/ visitors.	VEDA & APB	

6. Potential funding opportunities

To secure funding for the proposed actions aimed at promoting cultural heritage tourism through woodcraft and historic forest-based communities, several European funding programmes can be considered:

1. Interreg NEXT Black Sea Basin Programmes:

• Relevance: This programme offers financial support to transnational projects focusing on Enhancing protection and preservation of nature, biodiversity and green infrastructure.

2. LIFE Programme:

- Relevance: While primarily focused on environmental and climate action, the LIFE Programme funds projects related to the green transition in tourism. Initiatives that support the circular economy, energy efficiency, and climate neutrality in tourism activities may be eligible.
- Projects that integrate sustainable practices in cultural heritage tourism, such as eco-friendly workshops or sustainable forestry education, could align with LIFE's objectives.

3. Danube Region Programme:

• Relevance: This programme offers financial support to transnational projects contributing to a more innovative and sustainable Danube Region. It emphasizes preserving and promoting cultural heritage through transnational cooperation.

4. EURO-MED Programme:

Relevance: This programme offers financial support to transnational projects contributing to a
more innovative and sustainable Mediteranian Region. It emphasizes on Enhancing sustainable
tourism (RSO2.4) and on Protecting, restoring and valorising the natural environment and
heritage (RSO2.7)

7. Conclusion

• Summary of key points

The Varna Region in Bulgaria boasts significant natural and cultural assets related to its forests, which present diverse opportunities for tourism utilization. The Region's forests are a vital natural and cultural resource with diverse tree species, protected areas, and unique geological formations like the Stone Forest. These assets support a variety of tourism including ecotourism, health tourism, and cultural tourism, making the forests a key element in the region's tourism potential and sustainable development.

The regional analysis made within the Varna Regional Action Plan (RAP) was with a focus on the Northeast Planning Region (NUTS 2). It aimed at identification of practical measures for the protection and sustainable use of natural resources.

The actionable measures outlined in the RAP address not only ecological and economic challenges but also contribute to enhancing social cohesion and promoting balanced regional development.

• Future directions and recommendations

Action Area	Description of the recommendation	
Inventory & Mapping	Systematic inventory and mapping of forest resources, biodiversity hotspots, and wood heritage sites.	
Conservation & Restoration	Protecting old-growth patches, restoring degraded areas, and maintaining biodiversity through enrichment planting and natural regeneration.	
Sustainable Use & Valorization	Promoting sustainable forestry practices, supporting traditional woodworking, and developing value-added wood products.	
Ecotourism Development	Creating and marketing new ecotourism routes, improving signage, and integrating cultural and natural attractions.	
Education & Awareness	Developing educational materials, workshops, and online platforms to raise awareness of wood heritage and forest conservation.	
Stakeholder Collaboration	Engaging local authorities, forestry organizations, businesses, and cultural institutions in multi-stakeholder planning and implementation.	
Climate Adaptation & Monitoring	Implementing climate adaptation strategies, continuous monitoring of forest health, and risk management for fires, pests, and other threats.	

8. List of sources

- √ Visit Varna Official Visitors Guide https://visit.varna.bg/en/index.html
- √ Visit Aksakovo Official Tourist Portal https://visitaksakovo.com/
- ✓ Golden Sands Natural Park https://parkzlatnipiasaci.com/
- ✓ Map of Protected territories and protected areas in Bulgaria https://envgis.eea.government.bg/arcgis/home/webmap/viewer.html?webmap=705660 bcd8b04114ab2e0c0e3db49010&extent=000000000000027.152682,000000000000042.1 92993,0000000000000027.447910,000000000000042.413925
- ✓ Register of the protected territories and areas in Bulgaria https://www.eea.government.bg/zpo/bg/result2.jsp
- ✓ Register of the Ancient Trees in Republic of Bulgaria https://eea.government.bg/v-trees/bg/.
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- ✓ EUROSTAT, Forests, forestry and logging https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Forests,_forestry_and_logging
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- ✓ Food and Agriculture Organization of the United States/ Commission on Genetic Resources for Food and Agriculture, The second report on the state of the worlds' forest genetic resources/ State of institutional arrangements for the conservation, sustainable use and development of forest genetic resources https://openknowledge.fao.org/server/api/core/bitstreams/8ec69a1b-33ef-44cc-8ad6
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