

Regional Action Plan Zlatibor District in Western Serbia

Activity 1.3

Content

1	Introduction	3
2	Regional Analysis	5
3	Strategic framework	20
4	Actionable measures	24
5	Implementation plan and monitoring system	42
6	Potential funding opportunities	44
7	Conclusion	45
8	List of sources	47

LIST OF FIGURES:

1. FIGURE:	LAND USE CHANGE IN SERBIA (2000-2018) BY CATEGORIES	7
2. FIGURE:	LAND USE IN SERBIA BY CATEGORIES	8
3. FIGURE:	FOREST OWNERSHIP IN SERBIA	8
4. FIGURE:	FORESTS OF ZLATIBOR AREA	9
5. FIGURE:	TIMELINE OF SERBIA'S WOODWORKING HERITAGE	13
6. FIGURE:	TRADITIONAL VS MODERN WOOD VALUE CHAINS	14
7. FIGURE:	IDENTIFIED CHALLENGES AND CORRESPONDING OPPORTUNITIES FOR ZLATIBOR DISTRICT'S FORESTRY HERITAGE AND TOURISM DEVELOPMENT	18
8. FIGURE:	STANDARD STRATEGIC FRAMEWORK OF THE RAP	20
9. FIGURE:	DEVELOPMENT OF THE REGIONAL ACTION PLAN	20
10. FIGURE:	STRATEGIC FRAMEWORK OF THE ZLATIBOR DISTRICT REGIONAL ACTION PLAN (RAP)	22
11. FIGURE:	ACTIONABLE MEASURES ADDRESSING THE IDENTIFIED CHALLENGES	24
12. FIGURE:	ACTIONABLE MEASURES BUILDING ON STRATEGIC ACTIONS	26
13. FIGURE:	INDICATORS FOR THE IMPLEMENTATION OF ACTIONS	44

1. Introduction

1.1 General information of the Partner

PROJECT	Danube Wood(s) Route
PARTNER ORGANISATION CONCERNED	Zlatibor Regional Development Agency
COUNTRY	Republic of Serbia
NUTS2 REGION	Šumadija and Western Serbia Region
CONTACT PERSON	Miroslav Ivanović
E-MAIL ADDRESS	miroslav.ivanovic@rrazlatibor.rs

1.2 Overall and specific objectives of the Regional Action Plan of Zlatibor District

Zlatibor District (NUTS3) is located in the Šumadija and Western Serbia Region (NUTS2) of the Republic of Serbia. It is one of the largest districts in the country (6.141m²) with population of 286.549 people (Census 2022). It also stands for one of the most forested areas in Serbia, since 45% or 274.000 ha of its entire surface is covered with forests, what is above Serbia's average rate of 35%. Around 6% of its territory is under different protection regimes. Among 40 protected natural assets, there is 1 national park, several nature parks and many landscapes of outstanding features, what makes this area unique and attractive in many aspects, especially in terms of tourism.

Tourism industry represents one of the most important economic branches of this region, thanks to the mountain Zlatibor, recognized as one of the 4 top tourism destinations in Serbia by recorded visits and overnights. Besides Zlatibor, there are mountains Tara and Zlatar, oasis of a still untouched nature, rich in forests and biodiversity.

Forests and wood as material used for living and everyday life were of the great importance for local population in the past, what is visible through wood-related cultural heritage present in the region, like wooden churches, open-air museum presenting lifestyle in mountain areas in the 19th century, wood processing crafts and events launched to celebrate wood-related traditions of this area.

Natural and cultural wood-related assets represent strong potential for tourism valorisation and introduction in joint Danube Woods Route. Although locations listed in the inventory are at different development stage in terms of existing infrastructure preconditions and criteria necessary to be met for

becoming a part of the transnational route, there are still a few sites that could be successfully integrated in the joint tourism product that will be developed within Danube Wood(s) Route project.

In order to select and further develop site/sites proposed to be included in Danube tourism route, Zlatibor RDA established strong collaboration with relevant actors in the region, i.e. local tourism organizations, institutions in charge of managing protected areas, public, private and civil sectors, including representatives of local communities closely connected with forestry and wood traditions. In that sense, the aim of this Regional Action Plan based on the defined strategic objectives within the joint Danube Wood Cultural Route Strategy.

2. Regional Analysis

The regional analysis of the Zlatibor RAP is carried out in order to find out what are the main challenges and opportunities for further valorisation of wood-related heritage in Zlatibor District and to agree key actions with main stakeholders that will contribute to implementation of actionable measures described in the Section 4.

2.1 Natural and cultural assets

This assessment highlights the rich natural and cultural assets of the Zlatibor District and Serbia as a whole, emphasizing the deep historical ties between forest ecosystems, traditional woodcraft, and rural livelihoods. Within the framework of the Danube Wood(s) Route, the region presents a unique combination of diverse forest landscapes, tangible and intangible wood-based heritage, and potentials for community-led sustainable tourism development.

The Zlatibor District lies in the southwestern part of Serbia and is one of the country's most forested and ecologically significant areas. It encompasses a wide range of forest types (from montane beech and fir forests to mixed oak stands and pine plantations) many of which are semi-natural or managed under close-to-nature forestry principles. Based on national forest inventory data from 2024 Serbia's total forest cover is 38,9 %, with Zlatibor District exceeding that average (cca. 45%) and serving as an important green corridor within the Dinaric-Balkan-Carpathian Forest complex. Several protected areas, including the Tara National Park, Uvac Special Nature Reserve, Mokra Gora and Zlatibor Nature Parks and parts of the Drina River basin, play a critical role in biodiversity conservation, carbon storage and hydrological stability.

These forests provide essential ecosystem services such as climate regulation, soil protection, water retention and landscape connectivity. Old-growth Forest remnants, such as those in Tara, host rare and endangered species including the western capercaillie (*Tetrao urogallus*), Eurasian lynx (*Lynx lynx*), brown bear (*Ursus arctos*), and the Serbian spruce (*Picea omorika*) – a Balkan endemic of global conservation interest. Deadwood habitats and mixed-age structures are still present in several areas, supporting fungi, saproxylic insects and birds that rely on mature forest conditions.

However, these ecological treasures face growing pressures. Climate change has begun to affect forest composition and vitality, with increased occurrences of drought, pests and altered regeneration cycles. Illegal logging, although less prominent than in some neighboring regions, remains an issue, particularly in remote areas. Additionally, the uncontrolled spread of weekend housing and road infrastructure for mass tourism development risks fragmenting habitats and diminishing the quiet, immersive character of forested landscapes.

Culturally, the Zlatibor District preserves a distinctive wood-based architectural heritage, including traditional log houses (brvnare), shepherd huts (katuni), wooden mills, and churches dating back to the 18th and 19th centuries. Many of these structures reflect vernacular building knowledge, timber joinery techniques and an aesthetic deeply rooted in local identity. While some of these elements have been

incorporated into the mainstream tourism offer (e.g. open-air museum Sirogojno), many others remain hidden, underutilized or at risk due to depopulation and lack of restoration funding.

The region also carries a strong intangible heritage related to forests and wood, including seasonal transhumance practices, forest-based rituals, traditional woodworking skills and storytelling linked to forest spirits (vile) and guardians (duhovi-zduhači). Unfortunately, the intergenerational transmission of this knowledge is weakening, and most communities lack institutional support to maintain or reinterpret these practices in contemporary forms.

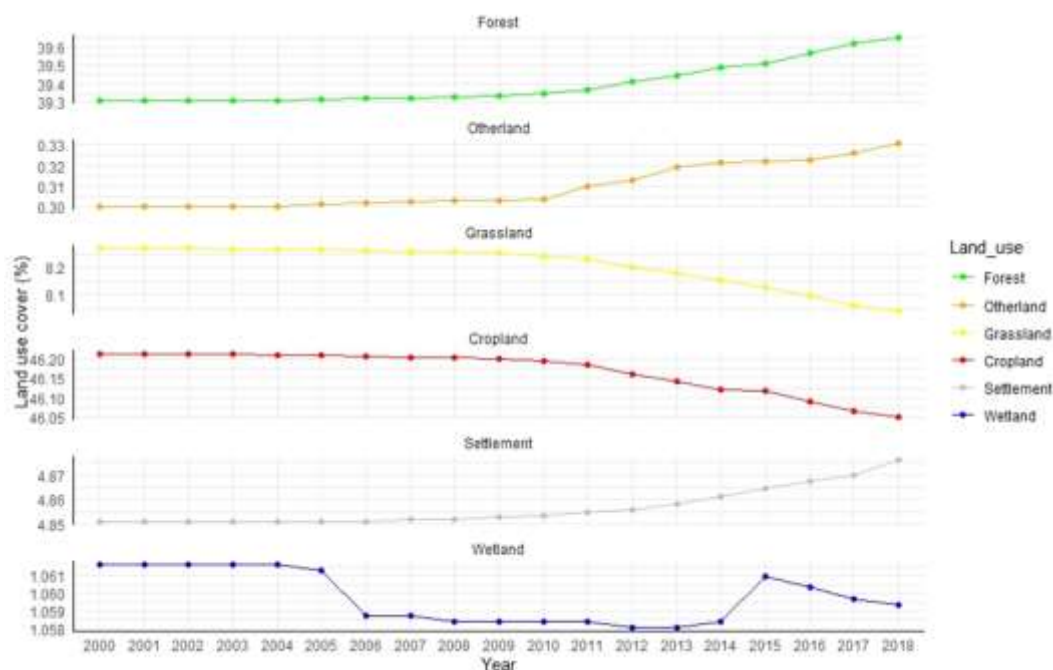
Despite the challenges, opportunities for wood-heritage tourism are numerous. The Zlatibor District already attracts visitors for its clean air, hiking trails and panoramic landscapes, but more thematic, forest-focused tourism routes—linking ecological, historical and spiritual dimensions of forests, are still underdeveloped. Initiatives such as dark-sky parks (e.g. Mount Zlatar), forest bathing (shinrin-yoku) experiences, or woodcraft workshops could become innovative products for both domestic and international visitors. Additionally, the region has a growing network of small family-run sawmills and artisanal producers of furniture, musical instruments and wooden toys, which could be linked into cultural-ecological itineraries that blend production, interpretation and experiential learning.

Nationally, Serbia has made progress in protected area designation (around 10,5 % of its territory as of December 2024), but enforcement, ecological monitoring and sustainable tourism integration remain uneven. The absence of a unified forest interpretation strategy or coordinated forest-tourism branding hinders more ambitious use of wood heritage as development leverage.

2.1.1 Forests of Serbia

Forest covers 39% of the territory of Serbia, based on the inventory data published in 2024. It shows significant change compared to the data from 2007 when national inventory has shown 29% of total forest area in Serbia. The increase of forest share in total land area came mostly from the reduction of grasslands and agricultural area following the process of depopulation of rural areas.

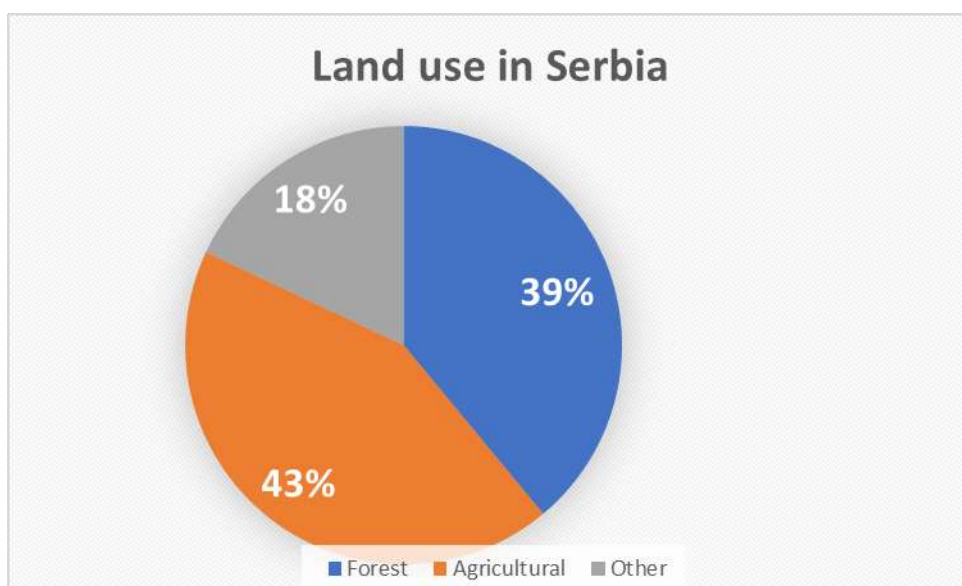
1. Figure: Land use change in Serbia (2000-2018) by categories



Source: National inventory of forests in Serbia, 2023.

Serbia's forests are characterized by remarkable biodiversity, but when it comes to dominant tree species, beech and oak stand out significantly. Together, they account for approximately 65% of the total timber volume in the country and cover about 40% of the total forest area. In contrast, coniferous forests are relatively rare, representing only around 10% of all forests in Serbia. Notably, the highest concentration of these coniferous forests is found in the Zlatibor District, making it a particularly important area for the conservation and sustainable use of this scarce forest type.

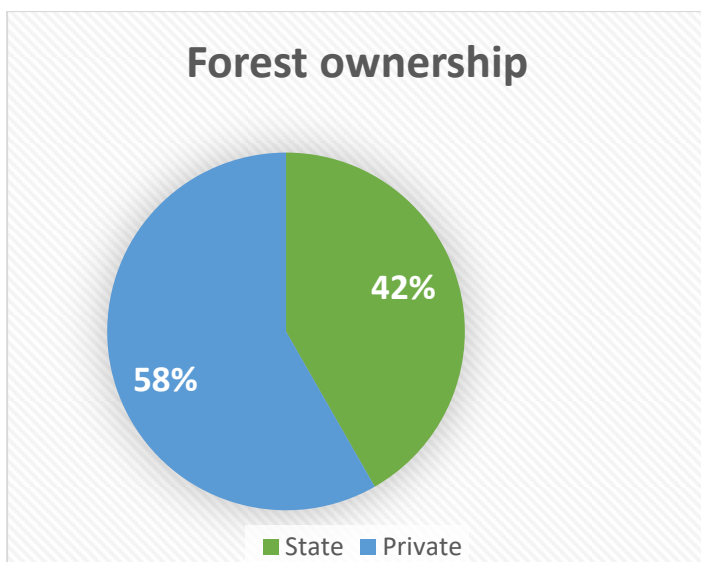
2. Figure: Land use in Serbia by categories



Source: National inventory of forests in Serbia, 2023

Over the past decade, significant changes have taken place in the ownership structure of forests in Serbia, primarily due to the ongoing process of restitution. This process involves the return of state-owned forests to their original private owners, from whom the land was confiscated by the communist authorities following World War II. A substantial portion of these forests has been restored to churches and monasteries, making religious institutions some of the largest beneficiaries.

3. Figure: Forest ownership in Serbia



Source: National inventory of forests in Serbia, 2023

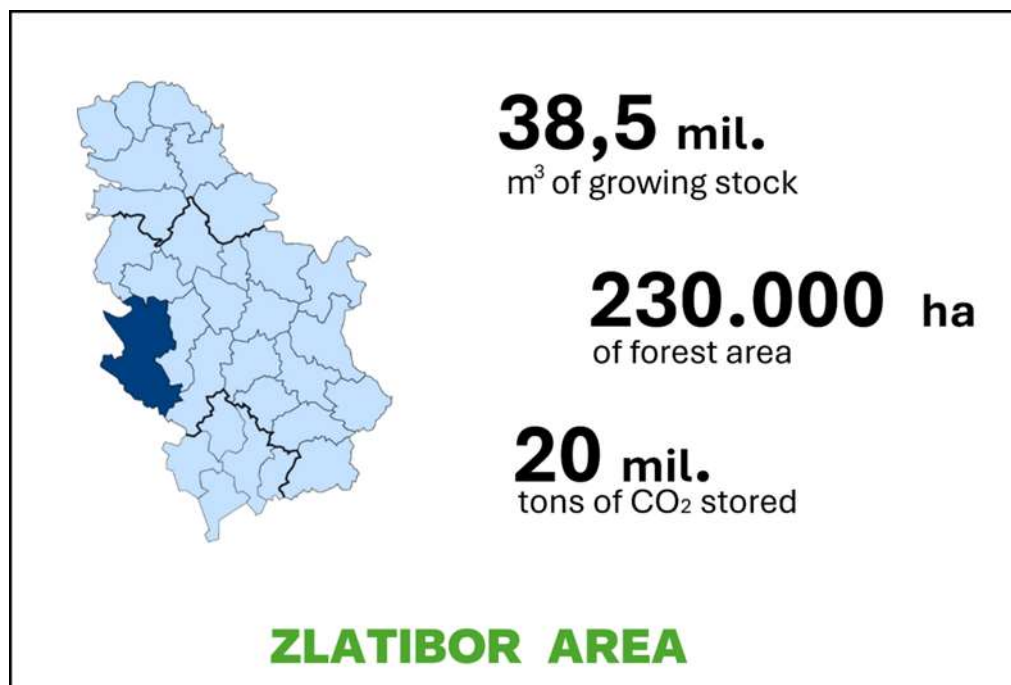
Ten years ago, private forests accounted for 52% of the country's forest area; today, that share has increased to 58%. As the restitution process continues, it is expected that the proportion of privately owned forests will grow by several more percentage points in the coming decade.

2.1.2 Forests in Zlatibor District

The Zlatibor District is one of the most forested regions in Serbia, with around 45% of its territory covered by forests (40% of forests and 5% of other forest land). The distribution between state-owned and privately owned forests is balanced, with approximately 100.000 hectares of state forests and 130.000 hectares of private forests. The slopes of Mount Tara are particularly rich in private forest complexes that have been used for decades to produce high-quality technical wood. In fact, the forestry tradition that Serbia prides itself on, have been most intensively developed in this region.

The total wood volume in the forests of the Zlatibor District amounts to 38.5 million m³. Of this, 18 million m³ are in state-owned forests and 20.5 million m³ in privately owned forests. Given that the area of state forests is approximately 100.000 hectares and private forests cover around 130.000 hectares, it becomes evident that state forests are of higher quality, with an average volume of 180 m³/ha, compared to 157 m³/ha in private forests.

4. Figure: Forests of Zlatibor area



Source: Calculations based on data from National inventory of forests in Serbia, 2023

It is important to note that the forests of Tara Mt. significantly exceed these averages in terms of quality. In state forests on Tara Mt., the average timber volume is 304 m³/ha, while in private forests it is 184 m³/ha.

The annual increment in the state forests of the Zlatibor District is around 400.000 m³, while the annual harvest is about 232.000 m³. This means that 58% of the annual increment is harvested, while 42% remains in the forest, contributing to a continuous increase in standing volume and ensuring the sustainability of wood use.

Almost all major milestones in the development of forestry in Serbia are in some way connected to Tara Mt. and the rural communities that live or once lived there. Several annual competitions in traditional logging skills (such as horse-drawn timber skidding) held in villages across the wider Tara area testify to the deep-rooted forestry heritage of this region. This is also reflected in the fact that forest owners are most actively organized here.

Moreover, the earliest scientific forestry research in Serbia began precisely on Tara Mt., where the first forestry experts educated abroad applied and tested their knowledge in local conditions. There is hardly any notable forestry or even botanical researcher who has not dedicated part of their scientific career to studying Mount Tara.

All of this clearly indicates the strong justification for investing additional efforts into improving access to and management of the private forests in this area, to fully utilize their potential. One encouraging development in this regard is the fact that forest owner associations have already begun forming on Tara Mt. Most of Tara Mt. lies within the municipality of Bajina Bašta, with a smaller portion in the territory of the city of Užice. Bajina Bašta is home to as many as six private forest owner associations, making it the most successful local government in this field. In general, associations from these two municipalities represent about half of all such associations in Serbia.

The Zlatibor District is one of the most forest-rich areas in Serbia, and its private forests are especially notable for the wide variety of tree and shrub species they contain. While deciduous forests dominate most parts of the country, this region is characterized by the presence of both deciduous and coniferous forests.

According to the National Forest Inventory of the Republic of Serbia (2009), coniferous species account for 12.5% of the total wood volume in Serbia, amounting to approximately 42.5 million cubic meters. In contrast, deciduous species comprise about 87.5% or around 296 million cubic meters. When it comes to private forests, this ratio is even more skewed toward deciduous species, with conifers making up only 8.2% of the total volume.

Given that coniferous forests in Serbia are almost exclusively located within the Zlatibor District and its surrounding areas (notably the municipalities of Ivanjica and Novi Pazar), it is evident that nearly the entire volume of coniferous wood from Serbia's forests originates from here.

2.2 Social and economic conditions in the region

The Zlatibor District, located in south-western Serbia, comprises of several local self-governments (1 city and 9 municipalities): Užice, Čajetina, Bajina Bašta, Priboj, Prijepolje, Nova Varoš, Sjenica, Požega, Kosjerić and Arilje. It is characterized by its mountainous terrain, high forest cover, rich cultural heritage and contrasting socio-economic realities. While the region possesses significant natural and cultural capital, its development has been shaped by long-term structural challenges, demographic decline and uneven economic transitions since the 1990s.

One of the defining social issues in the Zlatibor District is rural depopulation. Many villages have experienced outmigration, particularly among youth, due to limited employment opportunities and inadequate infrastructure. Aging populations, shrinking households and labor shortages in traditional sectors such as forestry and agriculture, further constrain local resilience and generational continuity. Urban centers like Užice remain modest economic hubs, but their capacity to retain and attract younger generations is limited by broader national trends.

Economically, the Zlatibor District presents a dual character: on the one hand, areas such as Čajetina and Zlatibor have developed dynamic tourism sectors, largely centered on winter, congress and wellness tourism. On the other hand, many municipalities, especially in the southern and border areas, face high unemployment, lower income levels, and weak private sector development. The informal economy remains significant, particularly in forestry-related work, small-scale logging and artisanal wood processing.

Forestry and wood-based industries have long-standing importance in the region's economy. Family-run sawmills, carpentry workshops, firewood businesses and mobile logging crews contribute both to local livelihoods and to regional exports. However, these sectors suffer from low levels of technological modernization, lack of branding, limited access to markets and insufficient business support services. Skills transfer and vocational training in woodcrafts, sustainable forestry and eco-tourism remain underdeveloped.

In recent years, there has been a growing awareness of the potential for green development, especially among youth, NGOs and rural development networks. Projects that promote sustainable forestry, biodiversity conservation, organic farming and community-based tourism have emerged, but they are often fragmented and rely on limited external funding. Institutional coordination among forestry stakeholders (public enterprises, private forest owners, municipalities, NGOs and education institutions) is still evolving.

At the national level, Serbia continues to face regional disparities. While Belgrade and several urban centers experience growth and modernization, rural and mountainous areas lag in infrastructure, investment and public service delivery. The national unemployment rate fluctuates around 10%, but in some parts of the Zlatibor region it exceeds 20%. The contribution of forestry and the wood sector to national GDP is modest (0,5-0,6% of GDP), yet its non-monetary value for rural development, cultural heritage and environmental sustainability remains high.

Over 100 forestry engineers and more than 150 forestry technicians are currently active in the forestry sector of the Zlatibor District. The forestry and wood processing industries directly employ over 1.200 people, making them significant contributors to the local economy. In addition, the broader supply chain

(ranging from logging and transportation to equipment servicing and secondary wood product manufacturing) supports employment for many more individuals across the region.

Public forestry enterprises managing state-owned forests in the Zlatibor region (which roughly account for 50% of the total forest area, with the other half being privately owned) generate annual revenue of approximately €13 million, with a yearly profit of around €0.7 million. These enterprises employ between 250 and 300 forestry professionals (engineers and technicians). Based on this, the annual profit per employed expert amounts to about €2.500, or roughly €200 per month. These figures reflect earnings from traditional forest production alone and do not include any added value that could result from the tourism-based valorisation of forests and wood heritage, which remains largely untapped within the operational scope of these enterprises.

There is increasing recognition that circular economy principles and heritage-driven development can revitalize rural regions. For the Zlatibor District, this means fostering entrepreneurship linked to forest products, cultural storytelling, and nature-based experiences. Efforts to register traditional crafts, establish regional labels and strengthen producer cooperatives are steps in this direction, but need stronger institutional support and visibility.

2.3 Woodworking in Serbia

















Woodworking has deep and enduring roots in Serbia, especially in its forest-rich regions such as Zlatibor, where the abundance of both deciduous and coniferous species has shaped a diverse and evolving wood-based culture. Traditionally, woodworking was not merely a craft or an industry - it was a way of life, woven into the daily existence, spiritual expression and material survival of generations.





In earlier centuries, rural communities across mountainous western Serbia constructed water-powered sawmills along fast-flowing streams and rivers. These primitive but effective machines - often built and maintained by local craftsmen - enabled early forms of mechanized wood processing, turning logs into beams and planks for construction, tools and transport. Many of these mills, known locally as vodeničare, were operational in the 20th century, but now a few preserved examples remain as ethnographic landmarks.

Another important but often overlooked traditional activity was resin tapping (smolarenje), particularly in pine-rich forests. The resin harvested from mature conifers was used as a raw material for producing tar, turpentine and other products essential to the pre-petroleum chemical industry. This practice, once economically significant in parts of the Zlatibor District, is now extinct but lives on in local memory.

During the socialist period, Serbia experienced the rise of large-scale wood processing enterprises. Industrial wood complexes (drvni kombinati) such as those in Užice, Priboj, and Prijepolje employed thousands of workers and handled everything from primary sawmilling to the production of furniture products. These vertically integrated companies combined raw material extraction, processing, design and distribution within a single system, often selling their products across Yugoslavia and beyond. While many of these state-run enterprises collapsed or were privatized in the 1990s, their legacy still influences the region's wood economy and skills base.

5. Figure: Timeline of Serbia's Woodworking Heritage

Period	Key Developments
 18th-20th c.	 Water-powered sawmills built in rural mountain villages
 19th century	 Resin tapping and tar/turpentine production begins
 20th century	 Formation of large-scale industrial wood enterprises (drvni kombinati)
 1960-1980	 Export of furniture and full-cycle manufacturing systems
 1980-1990	 Preservation efforts begin (e.g. Sirogojno Open-Air Museum, wooden churches)
 1990-2000	 Restructuring, closure and privatization of former state-owned wood firms
 2010-2020	 Return to craft traditions and local souvenir production
 2020-	 "RAŠ Omorika" Association launches cluster initiative for innovative woodcraft

Legend:  Craft woodworking |  Industrial processing |  Cultural heritage |  Modern trends

Source: Author's interpretation

Culturally, wood has been central to vernacular architecture, particularly in the Dinaric highlands. In the Zlatibor District, centuries-old pine trees were carefully selected and hand-hewn to build homes, storage sheds, barns and churches in a distinctive Dinaric architectural style—characterized by steep shingle roofs, interlocking wooden beams and minimal use of metal fasteners. The open-air museum "Old Village" (Staro selo) in Sirogojno stands as a living testament to this style, showcasing preserved and relocated wooden houses and workshops. In addition, wooden churches, often built without a single nail, remain scattered across the region as both spiritual centers and architectural treasures.

Today, despite economic and structural challenges, woodworking continues in new and adaptive forms. In Zlatibor and surrounding areas, local artisans and micro-enterprises craft wooden souvenirs, traditional toys, carved utensils and decorative items that reflect the region's heritage while serving modern tourist demand. The materials often come from privately owned forests, sustainably harvested and locally processed.

One promising development is the initiative of the Regional Association of Private Forest Owners "Omorika", which has launched efforts to establish a cluster of innovative wood processors in the Zlatibor District. The aim is to bring together small and medium-sized producers, designers and entrepreneurs to foster innovation, market access and knowledge exchange in the wood sector. By linking traditional skills with modern technologies and values such as sustainability and authenticity, this initiative seeks to position wood not only as a raw material, but as a vehicle for regional development and identity.

6. Figure: Traditional vs Modern Wood Value Chains

Category	Traditional Practice	Modern Practice
Dominant wood species	Pine, fir, oak	Pine, spruce, beech, biomass
Processing method	Manual tools, water-powered saws	Mechanized mills, CNC, drying chambers
Main products	Beams, houses, furniture, churches	Souvenirs, pellets, custom-designed furniture
Target market	Local community	Tourists, eco-conscious consumers
Cultural value	High (intangible heritage)	Growing (branding, storytelling, design)

Source: Author's interpretation

Woodworking in Serbia thus spans the arc from pre-industrial ingenuity to contemporary reinvention. The tools may have changed, but the connection between people, forests and craftsmanship remains vital - especially in regions where tradition and natural resources intersect, offering fertile ground for creative and resilient futures, as shown in Figure 5 and Figure 6.

2.4 Summary of the regional assessment

Forests in Serbia, especially in the western and south-western parts of the country, represent one of the most valuable and multifunctional ecosystems. They are a vital source of biodiversity, natural resources, cultural heritage, and economic activity. In the Zlatibor District - among the most forested parts of Serbia - this multi-functionality is particularly evident, as forests contribute not only to environmental protection and carbon sequestration but also to traditional livelihoods, tourism, and identity.

Serbia's forest cover has been increasing steadily over the past few decades and now stands at over 40% of national territory, with approximately 58% of forests in private ownership due to ongoing restitution processes. However, the fragmentation of ownership and uneven forest accessibility - particularly in the private sector - pose challenges to sustainable and economically viable forest management. In the Zlatibor District alone, privately owned forests cover over 140.000 hectares and are home to some of the country's rare coniferous stands, which are generally of higher technical and economic quality compared to other forest types.

Serbia's forests host an array of native and regionally significant tree species, dominated by beech and oak (making up 65% of the national growing stock), along with rare and economically valuable conifers primarily located in the Zlatibor District. The total standing volume in the Zlatibor District is estimated at 38.5 million m³, with private forests accounting for more than half of that. However, forest productivity and quality vary significantly, and the average standing volume per hectare is notably higher in state forests than in private ones - except in parts of Tara Mt, where private forests can match or even exceed state-managed quality.

Biodiversity is strongly embedded in the structure and functions of Serbia's forests, with habitats supporting large carnivores such as brown bears and lynx, as well as endemic and endangered flora and fauna. The conservation value of these ecosystems is also reinforced through protected areas such as Tara National Park, part of the wider Dinaric Mountain biodiversity corridor. At the same time, forest ecosystems face increasing pressures from climate change (drought, fires, pest outbreaks), depopulation of rural areas, and the spread of invasive species.

Economically, forests provide timber, fuelwood, non-wood forest products (mushrooms, herbs, game) and opportunities for wood-based tourism and cultural heritage valorization. However, the average annual profit per forestry professional in the state sector remains modest, around €2.500 per person, highlighting the limited economic returns from traditional forestry alone. Forest-related tourism, non-timber forest products and craft-based entrepreneurship represent underdeveloped potential in this regard.

Socially, Serbia's forestry sector faces demographic and educational challenges. Rural depopulation and the aging workforce are affecting the availability of skilled forestry professionals, especially in the private sector. In Zlatibor alone, over 100 forestry engineers and 150 technicians are active, but their numbers are slowly declining. At the same time, forestry creates direct employment for more than 1.200 individuals in the Zlatibor District, with many more depending on the supply chains, wood processing, and small-scale timber enterprises. Emerging initiatives, such as the Omorika Association's cluster for innovative wood processing, aim to revitalize these sectors by connecting tradition with innovation and entrepreneurship.

The relationship between people and forests in Serbia has evolved considerably over the past decades, from utilitarian extraction and industrial monocultures to growing interest in ecosystem services, nature-based tourism and cultural storytelling. Yet, environmental education and forest awareness remain

underdeveloped across most of the country and community engagement in forest governance is still limited.

To achieve a balanced future, Serbia must increase investments in forest road infrastructure, promote sustainable private forest management and recognize the broader cultural and ecological value of its wooded landscapes. Strengthening environmental education, particularly for youth and rural communities, is essential for building long-term sustainability.

Forest-based heritage and sustainability in Serbia can only be secured through active participation, smart regulation and innovative thinking. The ongoing transformation must embrace the complexity of forest landscapes, not only as economic assets but as cultural, ecological and social systems essential to regional resilience and identity.

2.5 Challenges and opportunities

The following chapter summarises the challenges and opportunities identified in Regional Analysis.

The development of tourism based on Serbia's rich forestry and woodworking heritage presents a wide array of opportunities, but also faces significant challenges that must be addressed to ensure sustainable and resilient growth. The Zlatibor District, with its combination of natural forests, traditional woodworking practices and cultural landmarks, is particularly positioned to benefit from these trends, provided that strategic investments, coordinated management and community engagement are prioritized.

Among the most prominent opportunities is the growing global interest in sustainable and eco-tourism, which aligns naturally with the forests, biodiversity and traditional woodcraft of western Serbia where Zlatibor District is located. There is potential to develop immersive nature-based tourism experiences, such as forest bathing, wildlife watching and guided ecological tours. These can be further complemented by thematic trails showcasing traditional woodworking techniques, historical wooden architecture and intangible cultural heritage linked to forestry. Educational programs and digital storytelling tools (e.g. 3D modelling, augmented reality) offer ways to connect younger generations with centuries-old skills, while also enhancing visitor engagement.

Additionally, Serbia can strengthen its position by integrating these assets into broader tourism routes, such as those linked to Tara National Park, Šargan Eight railway and Drvengrad. Creating coherent cultural and ecotourism packages that include forestry-related sites can help diversify the tourism offer and extend the visitor stay. There is also a significant opportunity to mobilize funding through European Union programs, regional development funds and cross-border partnerships to improve infrastructure, restore heritage sites, and develop educational and promotional content.

However, a number of challenges threaten to limit the realization of this potential. A primary issue is the lack of visitor infrastructure at most forestry-related sites. Outside of Tara National Park, many locations lack basic amenities such as restrooms, parking, interpretive signage and safe access routes. Accessibility remains a critical concern, particularly in remote or mountainous areas where road infrastructure is underdeveloped. Poor public transportation further isolates these areas, making them less attractive or even unreachable for domestic and international tourists.

Preservation and management challenges are also evident. Many sites of cultural or industrial forestry significance, such as historic sawmills or traditional woodcraft workshops, suffer from neglect, deterioration or unsafe conditions. Without designated preservation plans, regular maintenance or clear ownership structures, long-term conservation is difficult. The mixed public-private ownership of forest heritage adds further complexity to restoration and access initiatives.

Local community involvement is another critical gap. Many tourism-related initiatives do not adequately include or benefit rural residents. Traditional woodworking knowledge is fading and few programs exist to pass these skills to younger generations. Local artisans, guides and businesses often lack structured support, market access or integration into tourism networks. Without tangible economic benefits, community motivation to engage in heritage preservation remains low.

Environmental sustainability is also a growing concern. Increased tourism can bring ecological stress to fragile forest ecosystems, including habitat degradation and waste pollution. Climate change, illegal logging and biodiversity loss further compound these risks. Addressing these pressures requires integrated planning, forest management reforms and policies that incentivize sustainable practices.

Below is a detailed table that outlines the identified challenges and corresponding opportunities for Zlatibor District's forestry heritage and tourism development:

7. Figure: Identified challenges and corresponding opportunities for Zlatibor District's forestry heritage and tourism development

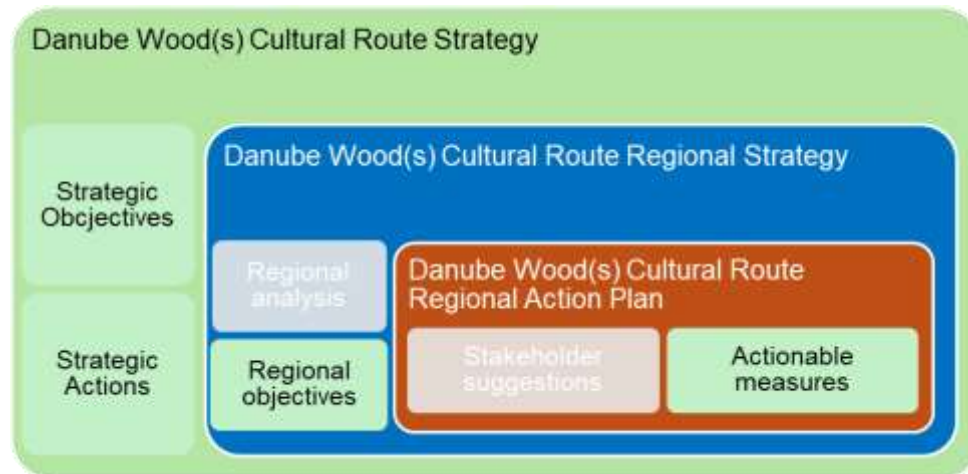
No.	Challenges	Opportunities
1	Lack of visitor infrastructure at forest heritage sites (restrooms, parking, signage).	Develop eco-friendly visitor centers and interpretive trails with EU funding support.
2	Accessibility issues due to poor roads and limited public transportation.	Invest in rural road improvements and create shuttle connections from major hubs.
3	Lack of educational materials and storytelling at sites.	Introduce guided tours, interpretive signage and digital tools to convey heritage.
4	Many sites are deteriorated and unsafe (old sawmills, wooden buildings...).	Restore heritage sites using public-private partnerships and conservation grants.
5	No formal management or preservation plans for wood heritage assets.	Establish management frameworks involving municipalities, NGOs and experts.
6	Low community engagement and economic benefit from tourism.	Develop artisan markets, workshops and local guide networks to boost involvement.
7	Disconnection between young people and traditional woodcraft.	Launch school programs, intergenerational apprenticeships and festivals.
8	Weak marketing and low international awareness.	Promote region through joint branding, cultural routes (e.g. Via Dinarica trail) and digital campaigns.
9	Fragmented efforts and lack of coordination among stakeholders.	Form regional wood heritage clusters to foster collaboration and joint ventures.
10	Ecological stress from tourism (waste, habitat disruption).	Enforce visitor limits and promote low-impact tourism (e.g. Leave No Trace principles).
11	Climate-related risks to forests (fires, pests, droughts).	Implement forest monitoring, genetic conservation and adaptive management.
12	Generational and cultural shifts reducing interest in forest heritage.	Create engaging, modern heritage experiences linking nature, culture and identity.
13	Over-reliance on external, variable project funding.	Build sustainable financing models through tourism revenue and green entrepreneurship.
14	Risk of unsustainable forest exploitation.	Promote certified sustainable forestry and biomass value chains.

15	Inadequate integration into national and regional tourism routes.	Align wood heritage initiatives with national tourism strategies and local destination plans.
16	Threats from invasive species and illegal logging.	Strengthen law enforcement and invest in forest protection and reforestation programs.
17	Absence of digital platforms for local artisans and cultural promotion.	Launch an online marketplace for local wood products and storytelling archives.
18	Cultural value of wooden churches and Dinaric architecture under threat.	Nominate wooden heritage sites for national and international cultural protection lists (e.g. UNESCO, Serbia's Cultural Monuments Registry).

Source: Conclusions of the stakeholders' workshops and working group meetings organized within Danube Wood(s) Route project.

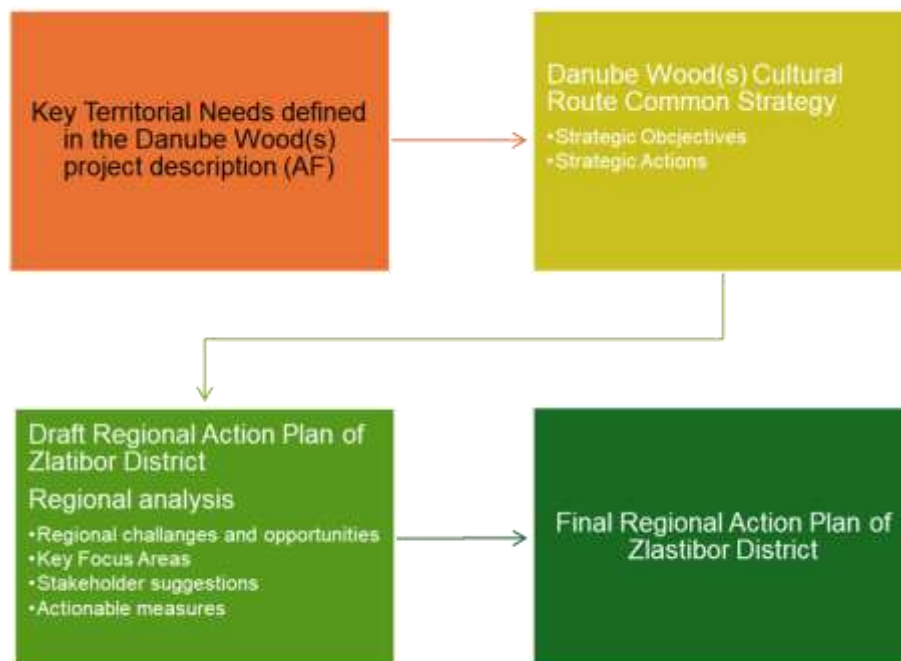
3.Strategic framework

Danube Wood(s) Cultural Route Regional Strategy Strategic objectives and related Actions:



8. Figure: Standard Strategic Framework of the RAP

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



9. Figure: Development of the Regional Action Plan

To be clear on the basis of actionable measures, the following table explains the connection of objectives between the objectives Danube Wood(s) project, the Danube Wood(s) Route Strategy, and the RAP. The RAP Key Focus Areas have to be in line with Strategic Actions and Objectives. Actionable measures are grouped under the RAP Key Focus Areas.

Standard, pre-defined Key Focus Areas of the RAP:

- Preservation and Conservation Initiatives - Actions to conserve forest areas and wood-based cultural heritage like habitat restoration, reforestation, and the promotion of traditional woodcrafts.
- Economic and Tourism Development - Building an infrastructure to support tourism products that promote cultural and natural assets related to wood, including workshops, cultural routes, and eco-tourism initiatives.
- Educational and Awareness Campaigns - increasing local and stakeholder awareness about the importance of sustainable forest management and wood-based heritage.

New arrangement of Zlatibor District RAP Key Focus Areas corresponding to the regional challenges, identified through collaboration during workshops with regional stakeholders involved, are:

- Integrated Conservation and Sustainable Use of Forest and Wood Heritage – integrated approach in establishing planned and participatory management of forests and heritage assets, reducing negative tourism impacts through sustainable practices, adapting to climate risks through ecosystem monitoring and resilience-building, promoting sustainable resource use through certified and locally adapted models, combating illegal activities and maintaining ecological balance.
- Revitalization and Interpretation of Wooden Cultural Heritage - developing engaging visitor experiences through guided tours, interpretive signage and digital storytelling tools, restoring and securing deteriorated wooden heritage sites such as sawmills and traditional buildings, encouraging collaboration between public institutions and private stakeholders to fund and implement conservation initiatives, raising public awareness about the cultural, historical and social significance of wooden heritage.
- Integrated Development and Promotion of Wood-Based Cultural and Nature Tourism - developing eco-friendly infrastructure, improving accessibility, creating regional clusters to foster cooperation among tourism operators, artisans and cultural institutions, integrating wood heritage into national and regional tourism strategies and destination management plans, launching digital platforms to showcase local woodcraft, architecture and oral traditions, safeguarding the cultural value of wooden churches and Dinaric architecture through national and international heritage designations (e.g., UNESCO).
- Community Empowerment and Cultural Transmission Through Wood-Based Tourism - creating local opportunities through artisan markets, workshops and networks of local guides that connect communities directly to tourism value chains, reconnecting younger generations with traditional woodcraft through school programs intergenerational apprenticeships, and cultural festivals, promoting community ownership and pride in wood heritage, while supporting skills development and cultural entrepreneurship.

10. Figure: Strategic framework of the Zlatibor District Regional Action Plan (RAP)

Strategic Objectives	Danube Wood Cultural Route Strategic Actions	RAP Key Focus Area
<p>Key Territorial need: Coordinated, sustainable management and revitalization of forest and wood heritage assets to enhance ecological resilience, cultural identity, and local socio-economic benefits.</p> <p>Danube Wood Cultural Route Strategy Objective: SO1 Preserve and/or restore biodiversity and natural resources.</p>	<ol style="list-style-type: none"> 1. Monitor Biodiversity 2. Strengthen forest governance 3. Promote sustainable forestry practices 4. Foster cross border collaboration 5. Actions for the restoration of biodiversity and natural resources. 6. Financial framework for assuring biodiversity payments 	<p>Integrated Conservation and Sustainable Use of Forest and Wood Heritage</p>
<p>Key Territorial need: Coordinated revitalization and interpretation of wooden cultural heritage across territories to safeguard traditional knowledge, enhance site attractiveness, and strengthen cultural identity</p> <p>Danube Wood Cultural Route Strategy Objective: SO3 Valorize Cultural Heritage Related to Wood</p>	<ol style="list-style-type: none"> 7. Enhancing and accessibility to forest resources 8. Enhance market access for regional timber products 9. Valorisation of forest products and services other than timber 10. Encourage local entrepreneurship 11. Foster innovation: Invest in research and development for innovative wood-based bio-economy solutions. 12. Promote traditional craftsmanship 13. Annual festival and events 14. Establish strong regional networks among key stakeholders 15. Develop heritage centres 	<p>Revitalization and Interpretation of Wooden Cultural Heritage</p>
<p>Key Territorial Need: Integrated territorial approaches to develop infrastructure, services, and branding for sustainable wood-based cultural and nature tourism that benefits</p>	<ol style="list-style-type: none"> 16. Develop cultural tourism products 17. Create active tourism products (hiking, biking...) 18. Capacity building for tourism stakeholders 	<p>Integrated Development and Promotion of Wood-Based Cultural and Nature Tourism</p>

Strategic Objectives	Danube Wood Cultural Route Strategic Actions	RAP Key Focus Area
<p>local communities, minimizing environmental impact</p> <p>Danube Wood Cultural Route Strategy Objective: SO4 Develop sustainable tourism</p>	<p>19. Infrastructure enhancement</p> <p>20. Promotion and international visibility</p>	
<p>Key Territorial need: Strengthen inter-generational cultural transmission and youth engagement in wood-based heritage through community-led tourism initiatives, storytelling, education and cultural tourism.</p> <p>Danube Wood Cultural Route Strategy Objective: SO 5 Raise awareness and build community engagement.</p>	<p>21. Educational campaigns</p> <p>22. Educational programs</p> <p>23. Digital awareness programs</p> <p>24. Community workshops</p> <p>25. Public information platforms</p> <p>26. Stakeholders collaboration forums</p>	<p>Community Empowerment and Cultural Transmission Through Wood-Based Tourism</p>

4. Actionable measures

The following table outlines the proposed actionable measures for Zlatibor District under the Danube Wood(s) Route Regional Action Plan. These measures address both natural and cultural heritage, with a focus on forest preservation, sustainable tourism, traditional knowledge revitalization, and inclusive community development.

Each measure is aligned with the strategic goals of the overall project and adapted to the specific context of the Zlatibor District.

11. Figure: Actionable Measures addressing the identified challenges

No.	Actionable Measures	RAP Key Focus Areas
1. (related to SO1)	1.1. Restore degraded forest edges and transitional zones using native tree species, especially in areas surrounding protected zones such as Tara National Park.	Integrated Conservation and Sustainable Use of Forest and Wood Heritage
	1.2. Develop a missing local plan in accordance to Law on Forests (Programi gazdovanja privatnim šumama) to manage private forests due to fact that private forests cover 50% of region and that quality is lower than in state owned forests.	
	1.3. Support conservation and restoration of wooden churches and vernacular architecture typical of Dinaric regions through partnerships with local parishes and heritage institutes.	
	1.4. Provide small grants and training to local artisans to preserve traditional woodworking skills and participate in festivals and markets.	
2. (related to SO3)	2.1. Support digitalization of existing wood heritage sites in Zlatibor District (e.g. Sirogojno old village museum)	Revitalization and Interpretation of Wooden Cultural Heritage
	2.2. Support eco-tourism microbusinesses with mentoring and funding for forest lodges, guided experiences, and souvenir production.	
	2.3. Establishment of National museum of forestry in old seed extractor building in Kremna (Užice) with standing exhibition of mass-afforestation actions after World War 2	
3. (related to SO4)	3.1. Capacity building - Provide targeted trainings for actors on forest-linked heritage related to networking, marketing and promotion.	Integrated Development and Promotion of Wood-Based Cultural and Nature Tourism
	3.2. Collaboration with cross-border regions (Bosnia and Herzegovina, Montenegro) to build joint tourism products based on shared wood heritage (Via Dinarica example).	
	3.3. Develop low-impact tourism infrastructure including rest	

No.	Actionable Measures	RAP Key Focus Areas
4 (related to SO5)	stops, eco-shelters, and bike routes using local materials.	Community Empowerment and Cultural Transmission Through Wood-Based Tourism
	3.4. Establish a "Zlatibor Wood Cluster" by mapping and connecting local sawmills, furniture makers, and craftsmen to improve value chains and branding.	
	4.1. Introduce forest-based education modules in primary and secondary schools, including field excursions and craft-based learning.	
	4.2. Open local "School of Woodcraft" offering courses in carpentry, icon painting, roofing, and forest ecology.	
4 (related to SO5)	4.3. Organize seasonal festivals, public awareness campaigns, and local media outreach to promote sustainable forest culture.	Community Empowerment and Cultural Transmission Through Wood-Based Tourism
	4.4. Facilitate multi-stakeholder training programs and create a digital platform for sharing tools, guides, and best practices.	

Source: Conclusions of the regional stakeholders' meeting (working group)

The following table presents a set of regionally adapted measures designed to implement the Zlatibor District RAP priorities. These measures respond to identified challenges and opportunities in the Zlatibor District and beyond, promoting long-term sustainability through cross-sector cooperation, local innovation, and cultural stewardship.

12. Figure: Actionable measures building on Strategic Actions

Strategic Actions	Actionable Measures	Zlatibor District Specific Context / Notes
1. Promote conservation of traditional wooden architecture, crafts, and forest-based cultural sites.	1.3 Conservation of wooden churches and Dinaric architecture 1.4 Revitalization of traditional woodworking skills	Focus on wooden churches, sawmills, and heritage homes in Tara, Sirogojno and Mokra Gora, with support for artisans to engage in workshops, markets, and education.
2. Support habitat restoration and biodiversity conservation to maintain ecosystem health.	1.1 Forest edge and buffer zone restoration 1.2 Private forests management	Restoration efforts should prioritize private forest parcels and degraded areas near Tara and Zlatibor Mts. Wildlife management should involve hunters and forest users to balance biodiversity and regeneration.

Strategic Actions	Actionable Measures	Zlatibor District Specific Context / Notes
3. Develop eco-tourism trails and thematic routes linking forest heritage with broader attractions.	2.1 Digitalization of forest heritage interpretation 2.3. Establishment of National Museum of Forestry 3.2 Cross-Border Collaboration on Eco-Tourism	Trail should connect Drvengrad, NP Tara, Šargan railway and forest villages; cross-border collaboration with Montenegro and BiH could boost visibility.
4. Establish platforms for education, innovation, and awareness around sustainable forestry and wood heritage.	3.1. Capacity building 4.2 School of woodcraft 4.4 Stakeholder training & Digital knowledge hub	Provide targeted trainings for actors on forest-linked heritage related to networking, marketing and promotion. Set up a regional center for hands-on learning in carpentry and forest ecology; create an online repository of case studies, educational resources, and best practices.

Source: Conclusions of the regional stakeholders' meeting (working group)

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

4.1 Action 1 - Capacity Building in the Wood Heritage Sector

4.1.1 Relevance of the measure

The Zlatibor District, despite its rich cultural and natural wood heritage, faces challenges in effectively promoting its attractions. Currently, the storytelling and digital marketing efforts for the region's wood-related heritage are underdeveloped, which limits the region's potential to fully engage modern tourists. This action addresses these gaps by building the capacities of local stakeholders in storytelling and digital marketing. These skills are critical to ensuring that the region's wood heritage is presented in a compelling and accessible way, attracting both local and international tourists, as well as revitalizing traditional wood-based sites that are underutilized. This measure directly responds to the needs outlined in the SWOT analysis during the regional action planning process, especially in enhancing the digital promotion and sustainable tourism around wood heritage sites.

4.1.2 Nature of the Action

This action focuses on training stakeholders, particularly those involved in the management and promotion of the wood heritage in Zlatibor, to effectively utilize digital storytelling and marketing techniques. By providing training in these areas, we aim to foster a deeper understanding of how to narrate the unique stories tied to the wood heritage of the region and leverage digital tools to enhance outreach and engagement. The action will promote networking and collaboration among various stakeholders, ensuring sustainable development of tourism around wood heritage attractions. Moreover, it will address the need for specialized skills in presenting traditional wood-based sites that have not yet been fully integrated into regional tourism.

4.1.3 Activities Performed Under the Action

The following activities will be implemented as part of this training initiative:

Activity	Description
Selection of expert trainers	Identify and engage a qualified expert with experience in storytelling, digital marketing and heritage preservation to deliver the training.
Preparation of training material	Develop training modules and materials in both Serbian and English. This will include PowerPoint presentations, templates for exercises, case studies and example content for practical use.
Selection of participants	The selection of participants will be based on the specific needs of various groups involved in the management and

	promotion of wood heritage and nature sites. The training will target key stakeholders who play an active role in tourism development, heritage preservation and local economic growth.
Training delivery	Implement the training in the form of workshop, with interactive sessions including group exercises, practical demonstrations and role-playing. Participants will engage in hands-on activities to create their own heritage stories and digital content.
Evaluation and feedback	After the training, collect feedback from participants to evaluate their understanding and satisfaction with the content. This will include group discussions and post-training surveys to assess the immediate impact of the training.

4.1.4 Potential Danube Wood(s) Cultural Route Points Involved

The training will involve key stakeholders linked with wood heritage, nature resources and tourism sector in the Zlatibor District. These points on the Danube Wood(s) Cultural Route will benefit directly from enhanced storytelling and digital marketing skills:

- **Sirogojno Old Village Museum** will benefit from improved storytelling capabilities, enabling it to better present its collection of traditional wooden buildings and crafts to a wider audience.
- **Local tourism boards (organizations)** will be equipped with the skills to craft and share compelling regional narratives that highlight the distinctive wood heritage and nature attractions in the area.
- **Public enterprises** responsible for managing protected areas will learn to balance conservation efforts with sustainable tourism promotion, using storytelling to emphasize the value of natural resources and heritage sites; and strengthen their engagement with the local communities and stakeholders to ensure that tourism growth does not negatively impact the environment.
- **Small and Medium Enterprises (SMEs)** that are involved in tourism, handicrafts and wood-related craftsmanship will gain valuable skills that can directly boost their businesses.
- **Tour operators and travel agencies** will also significantly benefit from the training, as they are key players in linking the tourism offer with the experiences available at wood heritage sites.
- **Local craftsmen and artisans** working with wood will directly benefit from the training, as they play a key role in preserving and promoting traditional craftsmanship.
- **Community organizations and NGOs** focused on heritage preservation and sustainable tourism will also benefit from this training. Their participation will help ensure that the local communities are actively involved in the development and promotion of heritage tourism.

4.1.5 Stakeholders Involved

The following stakeholders will participate and play key roles in the action:

- **Zlatibor Regional Development Agency (ZRDA)**, as the project coordinator, will oversee the planning, execution, and integration of training outcomes into regional tourism strategies.
- **Sirogojno Old Village Museum** will provide input into the content of the training, ensuring that local heritage and traditional woodcrafts are effectively represented in the storytelling modules.
- **External experts in digital marketing and storytelling** will design and deliver the training, leveraging their knowledge of heritage tourism promotion and digital tools to equip stakeholders with practical skills.
- **Local and regional tourism organizations** will engage in the training, ensuring that they can apply the learned techniques to boost the visibility of heritage attractions in the region.
- **Local craftspersons, public enterprises, and NGOs** managing wood-related heritage sites will participate in the training to learn how to better engage with tourists and promote their crafts and heritage through digital channels.
- **Tour operators and local stakeholders** will be included to learn how to integrate local heritage stories into their tour packages and better market lesser-known attractions.

4.1.6 Timeframe

Expert Selection – 1 month (initial step to identify and engage trainers)

Material preparation – 1 month (develop training materials, presentations and exercises)

Training delivery – 2 half - to one day (conduct training workshops in multiple sessions)

Evaluation and report preparation – 1 month (feedback collection, evaluation, and reporting)

4.1.7. Indicative Costs

Cost Category	Max Estimated Costs (EUR)	Description
External experts engagement	€3.000	Expert fees and preparation of materials
Logistics and accompanying services	€1.000	venue rental, materials printing, transportation, food and refreshment
TOTAL	€4.000	

4.1.8 Output and Result Indicators

Number of training sessions and workshops held: **2 half-day workshops**

Number of trained participants – **10-15 per training**

Participants: **At least 12 public sector representatives, 2 SMEs, and 2 NGOs.**

4.2 Action 2 - Support digitalization of existing wood heritage sites in Zlatibor District in the Sirogojno open-air museum

4.2.1 Relevance of the measure

The Sirogojno Old Village Museum represents a unique cultural and architectural heritage site in the Zlatibor District, showcasing traditional wooden dwellings and lifestyles from the 19th-century Dinaric Mountain area. The process of transfer, setting-up and reconstruction of log cabins in the Old Village was initiated by architect Ranko Findrik and the Republic Institute for Protection of Cultural Heritage in 1980. In 2013, the Museum was declared a cultural institution of national importance for Republic of Serbia. In order to continue thorough efforts in cultural heritage preservation and fostering the Museum received a special jury award of the European Union in the field of cultural heritage 2012, in the category of education and awareness raising, for the project Houses of Zlatibor Mt. from the nineteenth century up to the present. However, the current exhibition format limits accessibility, particularly for younger audiences and persons with disabilities.

This action addresses several core challenges:

Innovation and modernization - the Action responds to the needs of modern tourists for interactive and engaging content.

Inclusion - the Action offers digital access to people with mobility impairments who may struggle to navigate the museum terrain.

Preservation - the Action helps preserve and interpret traditional wooden architecture and craftsmanship through digital storytelling.

Tourism development - the Action upgrades the museum's offer within the Danube Wood(s) Cultural Route, positioning it as a leading digital heritage interpretation site in the region.

4.2.2 Nature of the action

This action will digitally transform the visitor experience at the Sirogojno Open-Air Museum by:

- Introducing interactive digital content (videos, audio guides, VR/AR) focused on wooden heritage.
- Installing a multifunctional display system for dynamic presentations.
- Making heritage accessible for all visitor groups, including youth and persons with disabilities.
- Strengthening the museum's visibility and attractiveness as part of the Danube Wood(s) Cultural Route.

This action will bring to life the stories, techniques and traditions related to wooden heritage through immersive digital media. Visitors will be able to explore videos showing traditional woodworking techniques, listen to audio guides narrating the history of each object or building, and potentially use VR/AR tools to experience reconstructed scenes from 19th-century village life. This approach will appeal to modern audiences, especially younger generations, who prefer multimedia learning formats.

A high-quality multifunctional screen will be installed in the museum, equipped to display a range of digital content. This screen will replace or complement traditional static information boards, allowing for a more engaging and personalized visitor experience. Visitors can choose topics of interest and view related videos or visual content in multiple languages.

By providing digital access to exhibitions, the project ensures that people with mobility challenges—who may not be able to physically reach all parts of the open-air museum—can still fully experience the collection. The interactive content will be designed with accessibility in mind, including audio descriptions, subtitles, and possibly touch-friendly interfaces, making it suitable for a wide audience including children, elderly visitors, and people with visual or hearing impairments.

The integration of digital interpretation will elevate the museum's profile within the Danube Wood(s) Cultural Route, showcasing it as a leading example of how traditional heritage can be innovatively presented. This not only enhances the visitor experience but also positions the museum as a forward-thinking institution that values both preservation and innovation. It can serve as a model for other heritage sites in the region.

4.2.3 Activities performed under the Action

Activity	Description
Consultation Meetings	Engage museum staff to refine needs and gather content ideas.
Procurement of Digital Expertise	Hire professionals to create high-quality digital content showcasing wooden heritage: lifestyle, architecture, and crafts.
Procurement and Installation of Equipment	Purchase and install multifunctional display screen, computer, projector
Digital Content Production	Produce videos, animations, and/or virtual tours based on museum's content.
Promotion & Dissemination	Publicize the new interactive exhibition through regional and international channels.

4.2.4 Potential Danube Wood(s) Cultural Route points involved

Sirogojno Old Village Museum as a central heritage site plays a vital role in preserving and interpreting the traditional wooden architecture, furniture and tools of the 19th-century Dinaric region. With over 30 original wooden buildings and a curated collection of household items and wooden crafts, the museum provides an authentic setting for digital storytelling. It is a cultural anchor of the Danube Wood(s) Cultural Route in Serbia.

As a key regional actor, ZRDA supports sustainable tourism development, heritage preservation, and innovation in cultural presentation. The agency will coordinate the digitalization effort, support stakeholder involvement, and promote integration of the museum's upgraded offer into regional and transnational tourism routes such as the Danube Wood(s) Cultural Route.

Active traditional woodworkers and artisans from the Zlatibor region, many of whom still practice techniques passed down through generations, will be engaged as cultural interpreters and contributors to the digital content. Their knowledge and demonstrations of wood carving, furniture making and tool crafting will be recorded and included in the interactive presentation, thus preserving intangible skills and strengthening the link between heritage and living tradition.

Academic and field experts specializing in traditional wooden architecture, ethnographic heritage, and Dinaric rural culture will be consulted during content development. Their input will ensure historical accuracy and depth of interpretation, particularly in the presentation of wood-related practices, such as construction techniques, use of forest resources, and social customs related to wood-based living.

The upgraded digital materials and approach may be shared or adapted by other museums and cultural institutions along the Danube Wood(s) Cultural Route. Sirogojno can serve as a pilot case or inspiration for future partnerships, knowledge exchange, and co-promotional activities within the wider network.

4.2.5 Stakeholders involved

The success of the digitalization initiative at the Sirogojno Old Village Museum relies on the collaboration of a diverse group of stakeholders, each bringing unique expertise and resources to the project. These stakeholders are instrumental in ensuring that the digital transformation not only preserves the region's wood heritage but also enhances the visitor experience.

Zlatibor Regional Development Agency (ZRDA) is a key coordinating and implementing body for this project. As a regional authority dedicated to the development of sustainable tourism, culture and heritage in the Zlatibor area, ZRDA will oversee the overall execution of the digitalization initiative. They will be responsible for managing procurement processes, coordinating with the museum and external experts, ensuring project milestones are met, and promoting the outcomes through regional and transnational networks like the Danube Wood(s) Cultural Route.

Sirogojno Old Village Museum as the primary content provider and site of the digitalization initiative, will offer historical and cultural expertise, providing information and access to the collection of wooden architecture, crafts and everyday life objects. The museum staff will work closely with the digital content experts to ensure accurate representation of the heritage, and they will provide technical support for the

installation and integration of digital tools such as the multifunctional screen, VR equipment, and interactive content.

The project will engage digital content creators who specialize in multimedia heritage projects, such as video production, interactive media, VR/AR technologies, and digital storytelling. These experts will work to design and produce engaging content that reflects the traditional woodworking techniques, the role of wood in daily life, and the cultural context of the Sirogojno Museum. Their work will include the creation of video documentaries, virtual tours, 3D models, and interactive elements that will allow visitors to explore the heritage in a more dynamic way.

Local woodcraft producers will be involved as key cultural interpreters, providing their knowledge and expertise on the traditional woodworking techniques that are central to the museum's exhibits. They may be featured in the digital content, demonstrating live craftsmanship or sharing insights into the tools and materials used in creating the wooden structures and items displayed in the museum. This collaboration not only supports the preservation of tangible heritage but also helps connect living traditions with modern interpretations.

To ensure historical accuracy and the depth of content, experts in wood heritage, ethnography, and traditional building techniques will contribute to the project. These specialists will provide invaluable input into the museum's narratives, guiding the development of digital materials that reflect the true significance of wood in the lives of people from the Dinaric region. Their role will be crucial in framing the context and relevance of the content, ensuring that the museum's cultural message is consistent with academic standards.

The end users of the digital tools and interactive content will include a wide range of visitor groups. Domestic and international tourists, particularly younger generations familiar with digital technologies, will benefit from a more engaging museum experience. The digital enhancements will also make the museum more accessible to people with disabilities, offering them alternative ways of interacting with the exhibits. Educational content and interactive elements will engage local youth, fostering a greater appreciation of their cultural heritage and making the museum a more inclusive space for all.

Local tourism boards and regional cultural institutions will play a critical role in the dissemination and promotion of the newly digitalized museum experience. These organizations will help spread the word about the upgraded visitor experience, encouraging more tourists to visit and making sure that the museum's enhanced digital offering is integrated into broader tourism marketing campaigns. They will also facilitate connections with other institutions in the Danube Wood(s) Cultural Route, helping to expand the network of cultural tourism within the region.

Other institutions and heritage sites along the Danube Wood(s) Cultural Route will serve as potential partners for sharing knowledge, experience and resources related to wood heritage. This could include other museums, cultural centers, and wood-related attractions that focus on craftsmanship, woodworking traditions, and rural life. Collaborative activities such as joint workshops, cross-promotion, or shared educational initiatives may strengthen the network and provide more value to visitors exploring the cultural route. The Sirogojno Museum's digital transformation could serve as a model for these other institutions, helping to build a cohesive and innovative heritage tourism offer across the Danube region.

4.2.6 Timeframe

Year 1:

- Development of digital contents (5 months)
- Equipment procurement and installation (4 months)
- Testing and initial use of the created digital interpretation (1 month)

Year 2 and beyond

- Promotion and public rollout of the upgraded museum experience.

4.2.7 Indicative costs

Cost Category	Estimated Cost (EUR)	Description
Equipment procurement and installation	€18.500	Purchase and install multifunctional display screen, computer, projector, and potentially VR glasses
External expertise	€10.000	Development of digital contents interpreting wood heritage of the Museum
TOTAL	€28.500	

4.2.8 Output and result indicators

- 1 digital installation developed (multifunctional unit)
- Estimated 3,000–5,000 visitors yearly benefiting from the Action
- Museum visitation increased +10% annually

4.3 Action 3 - Establishment of the National Museum of Forestry

4.3.1 Relevance of the measure

The proposed measure - to establish a national museum dedicated to Serbia's afforestation and seed production heritage in the village of Kremna, near Užice - is highly relevant both from cultural and environmental standpoints. The chosen site, a former pine cone seed extraction facility active from the post WWII era, holds historical significance as the nucleus of a once-thriving system of mass reforestation ended in the mid-1980s. During this period, millions of seedlings produced from locally sourced pine seeds were used to afforest large areas across the former Yugoslavia and southern Europe. The measure aims to preserve and celebrate this legacy by converting the site into a centre for learning, reflection, and innovation in sustainable forestry.

This initiative is aligned with national and European objectives for cultural heritage preservation, climate action, and sustainable land use. It provides a rare opportunity to showcase the intersection of forestry science, rural development, and collective memory. As Serbia increasingly positions itself within broader European sustainability frameworks, highlighting its historical contributions to reforestation and ecosystem restoration can enhance both domestic environmental awareness and international recognition. Moreover, the museum will serve as a tool for education, tourism, and community revitalization in a rural mountain area with untapped cultural and economic potential.

4.3.2 Nature of the action

The action entails the establishment of a national museum of afforestation and seed production in the village of Kremna, situated in western Serbia. The core of the initiative is the adaptive reuse and restoration of a former forest seed extraction facility that historically played a central role in producing high-quality pine seeds for reforestation programs across Yugoslavia and Southern Europe. This infrastructure, which once supported mass afforestation efforts from the 1950s to the 1980s, will be preserved and transformed into a multifunctional cultural and educational space.

The museum will be developed as an open, living institution, featuring permanent and temporary exhibitions, interactive educational content, and archives related to forestry, seed science, and the history of reforestation in Serbia. It will also serve as a venue for workshops, research seminars, and field visits, targeting school groups, forestry professionals, tourists, and local communities. The action includes designing interpretive trails around the site, documenting oral histories from former workers and experts, and incorporating digital storytelling and heritage preservation tools. The initiative aims to combine tangible and intangible heritage in a way that strengthens environmental awareness, celebrates local identity, and revitalizes a historically significant rural site.

Activity	Description
Conduct a detailed site assessment	A comprehensive architectural and structural evaluation of the former seed extraction facility in Kremna will be carried out to identify necessary restoration work and ensure safety and preservation of key heritage elements.
Organize stakeholder consultations and community workshops	Local residents, forestry experts, cultural institutions, and heritage professionals will be invited to participate in co-creation workshops to help shape the museum's concept and collect historical narratives and materials.
Develop an architectural and restoration plan	A professional team will prepare detailed architectural plans for the restoration of the facility, ensuring it meets modern standards for public access, energy efficiency, and heritage conservation.
Design the museum concept and exhibition program	The curatorial team will define thematic areas of the museum, including permanent and temporary exhibitions, interactive installations, and spaces for educational workshops and archival documentation.
Secure funding and administrative approvals	Project partners will apply for national and EU heritage and environmental grants, while also coordinating with local authorities to obtain all required permits for reconstruction and public use.
Initiate restoration and construction works	Construction teams will carry out structural rehabilitation of the building, adapt the interior for museum purposes, install exhibition infrastructure, and landscape the surrounding area to create a welcoming visitor environment.
Develop educational and interpretive content	Educational materials, signage, and digital content (e.g., videos, animations, seed processing simulations) will be prepared in cooperation with forestry schools, museums, and interpretation experts.
Recruit and train museum staff	Staff members will be recruited from the local area and trained in museum operations, visitor services, heritage interpretation, and forest-related education programs.
Launch a promotional and outreach campaign	A regional and national awareness campaign will be implemented, including social media, local media appearances, and collaboration with tourism organizations to attract interest ahead of the opening.

4.3.3 Potential Danube Wood(s) Cultural Route points involved

The future National Museum of Forestry in Kremna, western Serbia, presents a compelling potential point of interest along the Danube Wood(s) Route. Located near the tourist centers of Zlatibor and Mokra Gora, and in proximity to the cultural attraction of Drvengrad and the heritage railway Šargan Eight, the museum would be naturally embedded into a network of culturally and ecologically significant sites.

Housed in a restored post-WWII facility once used for the extraction of seeds from pine cones for mass afforestation purposes, the museum will serve as a unique testimony to Serbia's post-war environmental legacy and its contribution to large-scale reforestation in the Balkans and Southern Europe. This industrial heritage site is historically significant for its role in producing forest reproductive material exported throughout the region, contributing to ecological restoration far beyond Serbia's borders.

The museum could also become a thematic anchor for storytelling on reforestation history, sustainable forestry practices, and the intangible heritage of forest work. With its planned educational and interactive content, it would complement existing attractions along the Danube Wood(s) Route by linking forest-related cultural practices, industrial heritage, and environmental awareness, both in Serbian DWR parth ad well as in the whole DWR.

Thanks to its accessible location and potential integration with local craftspeople, eco-tourism initiatives, and educational trails, the Kremna museum could become a highlight for both domestic and international visitors interested in forest culture and the legacy of wood in Central and Southeast Europe.

4.3.4 Stakeholders involved

The successful implementation of the National Museum of Afforestation and Forest Seed Heritage in Kremna will require a collaborative, multi-stakeholder approach involving actors from various sectors, including forestry, culture, education, tourism, and local governance.

- **Local government of Užice and Kremna** will play a crucial role in providing institutional support, securing permits, and facilitating coordination with local services and infrastructure.
- **Public enterprise "Srbijašume"** as the owner of the object itself will be key partners in providing administrative needs, technical expertise, historical documentation, and possibly artifacts or equipment related to forest seed extraction and afforestation practices.
- **Ministry of Agriculture, Forestry and Water Management – Forestry Directorate, Ministry of Tourism and the Ministry of Culture** will be important for strategic alignment with national policies and potentially co-financing the development and long-term operation of the museum.
- **Associations of private forest owners**, as the supporter of the project, will promote stakeholder engagement, contribute expert knowledge on afforestation history, and link with local forest owners.
- **National and regional museums**, particularly those focusing on natural history and industrial heritage, will be involved in museological guidance, exhibit curation, and professional training.

- **Universities and research institutes** (e.g., the Faculty of Forestry, Institute for Forestry) will contribute to research-based content development, educational programming, and scientific valorization of the site.
- **Local artisans and woodworkers** will be engaged for interpretation of traditional woodworking practices and production of museum souvenirs and displays, promoting cultural continuity and local economic development.
- **Tourism organizations**, both local (e.g. Zlatibor Tourism Organization) and national (e.g. National Tourism Organization of Serbia), will assist in integrating the museum into existing tourism routes and promotional strategies.
- **International partners** (e.g., organizations involved in the Danube Wood(s) Route, EU cultural heritage programs) may provide support through expertise, networking, and co-financing opportunities.

4.3.5 Timeframe

The establishment of the National Museum of Afforestation and Forest Seed Heritage in Kremna is envisioned as a medium - to long-term initiative, spanning approximately 5 years. The timeline is structured into key phases as follows:

Year 1 - 2: Preparatory phase (Feasibility and stakeholder engagement, project design and planning)

- Conduct initial feasibility study and condition assessment of the former seed extraction facility
- Organize consultations with local authorities, forestry institutions, and community members
- Map and document historical processes and collect testimonies from retired forestry professionals
- Identify potential funding sources (EU, national, private sponsorship) and prepare preliminary concept
- Draft architectural and museological project design with expert input
- Secure ownership status and permits for restoration and repurposing of the building
- Develop detailed budget, work plan, and business model for museum sustainability
- Submit applications for funding and strategic partnerships

Years 3 - 4: Infrastructure and exhibit development

Begin restoration works on the former seed facility, ensuring structural integrity and preservation of industrial features

- Procure and curate museum exhibits, tools, documentation, and multimedia content
- Develop educational and interpretive materials, including signage and digital platforms
- Train staff and volunteers in museum operations, visitor management, and guided tours

Year 5: Pre-Opening Phase

- Install exhibits and complete all interior design and technical installations
- Pilot test museum activities (workshops, school visits, guided tours)
- Launch marketing and communication campaign targeting local, national, and international audiences
- Finalize institutional partnerships with tourism, education, and heritage networks

This timeline remains flexible and will be adapted based on funding availability, institutional readiness, and community engagement. However, the phased approach ensures gradual capacity-building, ownership, and long-term impact.

4.3.6 Indicative costs

Cost Category	Estimated Cost (EUR)	Description
Feasibility study and project design	€15,000	Includes technical assessments, heritage studies, architectural and museological design.
Building restoration and adaptation	€250,000	Structural repair, interior renovation, insulation, accessibility upgrades, and safety installations.
Exhibit development and equipment	€60,000	Procurement and installation of display materials, seed extraction machinery replicas, multimedia equipment, and interpretive signage.
Museum programming and educational content	€20,000	Development of workshops, interactive displays, eco-education modules, and printed/digital materials.
Staff recruitment and training	€15,000	Hiring of museum curator, guide, and administrative staff; training in heritage interpretation and visitor services.
Marketing and promotion	€20,000	Branding, launch events, website, digital outreach, and printed materials for national/international visibility.
Contingency Reserve (approx. 5%)	€20,000	Reserved for unforeseen construction, inflation-related adjustments, or permit delays.
TOTAL	€400.000	

4.3.7 Output and result indicators

- 1 national museum established in a restored forest heritage building
- 1 permanent exhibition on afforestation and forest seed heritage installed
- At least 3 interactive educational programs developed (for schools, tourists, and professionals)
- 1 fully operational website with virtual tour and visitor information
- Minimum 5 public events or educational workshops organized within the first year
- At least 10 local stakeholders involved (e.g. guides, artisans, forestry experts)
- 2.000+ visitors expected annually within the first two years
- 1 partnership established with the Danube Wood(s) Route network

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:

13. Figure: Indicators for the implementation of actions

Measure (number)	Indicator		How (method)	Who (PP or other acronym)
	Measurement unit	Value		
Action 1	Number of training sessions and workshops held	2	Reports, photos, training materials, lists of participants	ZRDA
Action 1	Number of trained participants	10-15	Reports, photos, lists of participants	ZRDA
Action 1	Number of organizations involved in the training	At least 15 - public 11, 2 SMEs, 2 NGOs	Reports, photos, lists of participants	ZRDA
Action 2	Digital installation developed (multifunctional unit)	1	Supplier report, photos, functional device	ZRDA
Action 2	Videos/audio/VR elements (digital content) produced	5	Developer report, number of developed services, images, videos	ZRDA
Action 2	Annual number of visitors benefiting from the Action	3,000–5,000	Museum annual report	ZRDA
Action 3	Number of new museum established	1	Founding act	ZRDA and PE Srbijašume
Action 3	Number of permanent exhibitions installed	1	Review records and installations reports	ZRDA and PE Srbijašume
Action 3	Number of interactive educational programs developed	At least 3	Count of interactive educational programs developed and documented	ZRDA and PE Srbijašume
Action 3	Number of fully operational website with virtual tour and visitor information developed	1	Developer report, number of developed services, images, videos	ZRDA and PE Srbijašume
Action 3	Number of public events or educational workshops organized	Minimum 5	Event records and workshop documentation	ZRDA and PE Srbijašume
Action 3	Number of local stakeholders involved	At least 10	Stakeholder involvement records and event attendance data	ZRDA and PE Srbijašume
Action 3	Number of visitors expected annually within the first two years	2.000+	Museum annual report	ZRDA and PE Srbijašume
Action 3	Number of partnership established with the Danube Wood(s) Route network	1	Partnership agreement or formal collaborations	ZRDA and PE Srbijašume

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:

- **Interreg Cross-Border Cooperation (CBC) Programmes**

Relevance: Supports transnational projects that foster cooperation across borders, emphasizing the preservation and promotion of cultural heritage, including woodcraft and forest communities.

- **Danube Region Programme**

Relevance: Offers financial backing for projects that enhance innovation and sustainability in the Danube Region, with a focus on conserving and showcasing cultural heritage through collaborative efforts.

- **European Union Structural and Investment Funds (ESIF)**

Relevance: Provides funding for regional development projects, including heritage preservation, tourism infrastructure, and sustainable forestry initiatives aligned with EU policies.

- **European Agricultural Fund for Rural Development (EAFRD)**

Relevance: Supports rural communities in developing sustainable practices, including heritage-based tourism, artisanal woodcraft, and ecological forest management.

- **Creative Europe Programme**

Relevance: Funds cultural projects, including those aimed at digitalization of heritage sites, craft preservation, and cultural tourism promotion.

- **National and Regional Funding Schemes**

Relevance: Local government or regional agencies often offer grants for heritage conservation, tourism development, and community-based cultural projects, which can complement larger EU programs.

These funding avenues can be strategically utilized to secure resources for initiatives like digitalization, heritage site restoration, community engagement, and the development of sustainable tourism routes linked to woodcraft and forest-based cultural heritage.

7. Conclusion

The comprehensive analysis of the Zlatibor District's natural and cultural assets underscores its significant potential for developing a sustainable, heritage-based tourism sector centered around woodcraft and forest communities. The region's rich biodiversity, traditional wood architecture, and longstanding woodworking traditions form a cohesive cultural landscape that, if strategically leveraged, can contribute to regional economic growth and cultural preservation.

The proposed strategic actions including the digitalization of heritage sites like the Sirogojno Old Village Museum, the establishment of a National Museum of Forestry, and the promotion of eco-tourism and traditional craftsmanship, are designed to address current challenges such as infrastructural deficiencies, site deterioration, limited stakeholder engagement, and environmental pressures. These initiatives aim to enhance visitor experience, strengthen community involvement, and ensure the sustainable management of forest and cultural heritage assets.

Key opportunities identified include expanding digital storytelling, fostering cross-border collaborations, and developing innovative tourism products that integrate ecological, cultural, and experiential elements. However, realizing this potential requires coordinated efforts among local communities, public institutions, private sector actors, and regional and European funding bodies.

Future directions should focus on securing dedicated funding through European programs like Interreg CBC and the Danube Region Programme, alongside national and regional support schemes. Strengthening stakeholder partnerships, investing in infrastructure, and implementing educational campaigns are essential to foster heritage conservation, environmental sustainability, and community empowerment.

In conclusion, a strategic, multifaceted approach combining heritage preservation, digital innovation, sustainable forestry, and community-driven tourism, will be instrumental in transforming the Zlatibor District into a dynamic cultural landscape. This will not only safeguard its unique wood-based traditions but also position it as a prominent destination within the broader Danube region's cultural and ecological network.

Summary of Key Points:

- The Zlatibor District in Serbia is rich in natural and cultural heritage related to forests and woodcraft, offering significant potential for sustainable tourism development.
- Strategic actions include digitalization of heritage sites, establishing a Forestry Museum, and promoting eco-tourism and traditional woodworking crafts.
- Challenges such as infrastructure deficits, site deterioration, limited community engagement, and environmental pressures need addressing to realize this potential.
- The regional analysis highlights opportunities for innovation, cross-border cooperation, and valorization of wood-related traditions, which can be supported through targeted funding and strategic partnerships.

Future Directions and Recommendations:

- Strengthen stakeholder collaboration among local communities, authorities, and cultural institutions.
- Prioritize the development of visitor infrastructure, digital storytelling, and educational programs to enhance accessibility and engagement.
- Secure European and national funding to support heritage preservation, tourism infrastructure, and community entrepreneurship.
- Promote awareness campaigns and sustainable practices to ensure long-term ecological and cultural sustainability.
- Foster regional and transnational cooperation to build a cohesive, attractive cultural route that highlights the unique woodcraft and forest heritage of the region.

8. List of sources

- FAO and GEF (2023). NATIONAL INVENTORY OF FORESTS IN SERBIA, Ministry of Agriculture, Forestry and Water Management – Directorate for forests, Belgrade
- Report on National Forest Inventory of the Republic of Serbia (2009), Ministry of Agriculture, Forestry and Water Management – Directorate for forests, Belgrade
- „Popis stanovništva, domaćinstava i stanova 2022“, Republički zavod za statistiku (RZS), Beograd, 2023
- Marić, Đ., Bešlić, S. (2018.) Strategy of the opening of the private forests in Užice and Bajina Bašta, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Užice
- Marić, Đ., Jerotić, S. (2015.) Green agenda of sustainable use of biomass in Zlatibor area, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Užice
- <https://upravazasume.gov.rs/oglasna-tabla/naredbu-o-proglasenju-prirodne-nepogode-i-merama-zastite-i-sanacije-suma-ostecenih-vetrolomima-i-vetroizvalama-2/>