„Biosphere Reserves as model regions for climate change mitigation and adaptation – capacity development for the establishment of the Dilijan Biosphere Reserve in Armenia"

Implementation Plan and Roadmap for the Establishment of the Dilijan Biosphere Reserve

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Authors and Contributors

Anja Salzer

Areg Karapetyan

Lusine Baghdasaryan

Nika Malazonia

Vazgen Galstyan

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List of Abbreviations

BfN – Bundesamt für Naturschutz (German Federal Agency for Nature Conservation)

BMUKN – Bundesministerium für Umwelt, Klimaschutz, Naturschutz und nukleare Sicherheit (Federal Ministry for the Environment, Climate Action, Nature Conservation and Nuclear Safety)

BR – Biosphere Reserve

BRMB – Biosphere Reserve Management Body

CBD – Convention on Biological Diversity

CCA – Community Conserved Area

CEPA – Comprehensive and Enhanced Partnership Agreement

CNF – Caucasus Nature Fund

CSR - Corporate social responsibility

DBR – Dilijan Biosphere Reserve

ISC – Intergovernmental Steering Committee

KfW – Kreditanstalt für Wiederaufbau (German Development Bank)

KMGBF – Kunming-Montreal Global Biodiversity Framework

LSGB – Local self-governing body

MAB ICC - International Coordinating Council of the Man and the Biosphere Programme

MFA – Ministry of Foreign Affairs of the Republic of Armenia

MoE – Ministry of Environment of the Republic of Armenia

MoEcon – Ministry of Economy of the Republic of Armenia

MoESCS – Ministry of Education, Science, Culture and Sports of the Republic of Armenia

MoTI – Ministry of Territorial Administration and Infrastructure of the Republic of Armenia

MSF – Michael Succow Foundation

RA – Republic of Armenia

PA – Protected Area

SDG – Sustainable Development Goal

SOL – Soluton LLC

SPNA – Specially Protected Nature Area

UBA – Umweltbundesamt (German Environment Agency)

UWC – United World College

UNESCO – United Nations Educational, Scientific and Cultural Organization

UNESCO MAB – Man and Biosphere Programme of UNESCO

WNBR – World Network of Biosphere Reserves

1. Introduction

1.1 History of the UNESCO's Man and the Biosphere Programme

The UNESCO Man and the Biosphere (MAB) Programme, established in 1971, is a leading initiative for biodiversity conservation and sustainable development. It seeks to strengthen the relationship between people and their environment through an inter- and transdisciplinary approach that integrates natural and social sciences, the humanities and Indigenous and local knowledge. The programme strives to improve human livelihoods and safeguard both natural and managed ecosystems, promoting innovative approaches to economic development that are socially and culturally appropriate and environmentally sustainable.

By focusing on sites internationally recognized within the “World Network of Biosphere Reserves” (WNBR), the MAB Programme endeavours to:

- Identify and assess changes in the biosphere resulting from human and natural activities, and their effects on humans and the environment, particularly in the context of climate change
- Study the interrelationships between ecosystems and socio-economic processes amidst the loss of biological and cultural diversity, which hinder the provision of ecosystems services for human well-being
- Ensure basic human welfare and a livable environment in the context of rapid urbanization and energy consumption as drivers of environmental change
- Promote the exchange and transfer of knowledge on environmental problems and solutions, and to foster environmental education for sustainable development

1.2 UNESCO Biosphere Reserve Definition and Main Objectives

According to UNESCO’s governance frameworks for Biosphere Reserves, including the Seville Strategy, the Statutory Framework, and the Technical Guidelines, a biosphere reserve (BR) is a designated area that integrates nature conservation, scientific research, and sustainable economic development. It promotes the wise and equitable use of natural resources to improve livelihoods, well-being, and resilience while safeguarding the environment. By harmonizing environmental policy with local progress without further ecosystem degradation, BRs function as model regions for balancing sustainable livelihoods with environmental integrity. The MAB programme’s core aim is to deepen understanding of human–nature interactions and to generate practical solutions that support environmental preservation, socio-economic advancement, and adaptive governance.

1.3 Three Main Functions of UNESCO Biosphere Reserves

In line with UNESCO’s BR frameworks and guidelines, BRs strive to be sites of excellence for exploring and demonstrating innovative approaches to conservation and sustainable development at a regional scale by combining the three functions:

- Conservation – to contribute to the conservation of landscapes, ecosystems, species and genetic diversity;

- Development – to foster economic and human development that is socio-culturally and ecologically sustainable;
- Logistic support – to provide support for demonstration projects, environmental education, training, research and monitoring related to local, regional, national and global issues of conservation and sustainable development.

Although there is no global recommendation regarding the minimum or maximum size of a biosphere reserve, the *Statutory Framework of the World Network of Biosphere Reserves* explicitly states that “the site should have an appropriate size to serve these three functions” (UNESCO, 1996, Art. 4). This flexible approach facilitates global application and implementation, accommodating a variety of environmental and geopolitical contexts. However, each nomination must clearly demonstrate the proposed area’s capability to fulfil all three functions and meet the established criteria (UNESCO, 1996).

1.4 Zoning Principles of UNESCO Biosphere Reserves

Zonation within BRs is a key mechanism in environmental management, enabling the conservation of the area's ecosystems while ensuring their sustainable use. This spatial organisation supports implementation of the three core functions of a BR by structuring the area into complementary zones with distinct yet interrelated purposes. These functions should be recognized and incorporated through appropriate zonation, consisting of:

- (1) legally constituted core area or areas dedicated to long-term protection of landscapes, ecosystems, species and genetic diversity according to the conservation objectives of the BR; these are required to be of sufficient size to meet the conservation objectives;
- (2) buffer zone or zones, clearly delineated, surrounding or contiguous to the designated core area or areas, where only activities compatible with the conservation objectives can take place;
- (3) transition area, where sustainable resource management practices are promoted and developed.

In combination, these zones form a continuum ranging from strict protection to sustainable use, reflecting the dynamic relationship between humans and nature. The core area provides the foundation for long-term conservation, the buffer zone facilitates activities that reinforce ecological integrity, and the transition area serves as a space for collaboration, innovation, and learning. The zonation model offers a framework for BRs to function as living laboratories for sustainable development, wherein conservation, community well-being, and scientific knowledge mutually reinforce one another.

2. Background

2.1 National Context and MAB Programme Implementation in Armenia

Armenia, situated in the Caucasus Eco-region, is part of two globally recognized areas of exceptional and endangered biological diversity: one of the 25 Global Biodiversity Hotspots identified by Conservation International, and the WWF's Global 200 Ecoregions. The country is home to a remarkable number of endemic species, including 452 plant and 308 animal species listed in the 2010 Red Book. Its diverse ecosystems encompass nearly all major biomes found in the Caucasus, with the exception of moist subtropical zones, and Armenia ranks among the top countries worldwide in terms of vascular plant density.

Despite this ecological wealth, Armenia's natural habitats face mounting threats from deforestation, excessive grazing, illegal hunting, and the impacts of climate change. Over the past eight decades, the country has experienced a 1.1°C increase in average temperature and a 10% decline in precipitation (ADB, 2021). These shifts jeopardize water resources, ecosystem stability, and agriculture — a sector that contributes roughly 12% to the national GDP (MOENR, 2021). While adaptation efforts are still developing, Armenia has taken steps by participating in international climate initiatives and implementing policies such as its Intended Nationally Determined Contributions (INDC) and climate-resilient strategies for water and agriculture (NDC Partnership, 2024, HBF South Caucasus, 2024).

The revised draft of Armenia's National Biodiversity Strategy and Action Plan (NBSAP) sets an ambitious goal to expand Protected Areas (PAs) to cover 30% of the country's territory. Currently, PAs account for just 13.1%, comprising 3 state reserves, 4 national parks (Dilijan, Sevan, Arpi Lake, Arevik), 27 sanctuaries, and more than 200 natural monuments (MOENR, 2025). Nevertheless, biodiversity continues to decline due to habitat fragmentation, pollution, and unsustainable exploitation of natural resources.

BRs present a holistic framework for conservation, sustainable land management, and climate adaptation. Armenia has incorporated BR development into several national strategies, including the draft NBSAP. Although interest in BR development has existed for years, none have yet been established. The National MAB Committee operated until 2,000 under the chairmanship of Professor Armen Saghatelyan within the National Academy of Sciences. Following his death and a subsequent restructuring of the Academy, the Committee ceased its activities and is no longer functioning as a legally recognized body. It therefore requires formal reinstatement with clearly defined membership, mandate, and functions. Discussions are underway to relaunch the Committee under the auspices of the Ministry of Education, Science, Culture and Sport of the Republic of Armenia. From 2017 to 2019, a comprehensive national assessment was conducted and eight potential areas for BR establishment were studied. Following consultations and analysis, the Dilijan region was selected as a priority site in 2022. The Ministry of Environment of the Republic of Armenia expressed formal support for the initiative and engaged in further dialogue with partners. A capacity-building project „Biosphere Reserves as Model Regions for Climate Change Mitigation and Adaptation - Capacity Development for the Establishment of the Dilijan Biosphere Reserve in Armenia" was subsequently launched in Dilijan, financed by the German Federal Environment Ministry's Advisory Assistance Programme, and supervised by the German Environment Agency (UBA) and the Federal Agency for Nature Conservation (BfN). The project was carried out by the Michael Succow Foundation in partnership with the Armenian

organization “Solution” and the Ministry of Environment, aiming to build institutional capacity and initiate the conceptual development of the Dilijan Biosphere Reserve[1] (DBR).

This effort successfully mobilized stakeholders at both local and national levels, deepened understanding of the BR model, and laid the foundation for the formal nomination of Dilijan as Armenia’s first BR. This document is one of the key results of this project, summarizing the process and outcomes from the preparatory phase, and outlining the strategic roadmap and practical steps required for the official nomination and future implementation of the DBR. The document will serve as a guiding reference for the next stage of the nomination process.

The BR development initiative aligns closely with Armenia’s environmental and climate objectives and represents a major step toward integrating conservation with sustainable development under the UNESCO MAB Programme.

With Armenia set to host CBD COP 17 in 2026, the national government has reaffirmed its commitment to establish the first Biosphere Reserve in Dilijan. This dedication was further emphasized by Deputy Minister of Environment Mr. Meymaryan, who formally announced Armenia’s intention for the first BR during the 5th World Congress of Biosphere Reserves held in Hangzhou, China in 2025.

2.2 Alignment of the Programme with the State Strategies and International Commitments of RA

Armenia is deeply committed to the Sustainable Development Goals (SDGs), having adopted the global 2030 Agenda for Sustainable Development in September 2015. This commitment is evident in various national strategies and international agreements, ensuring a cohesive approach to sustainable development.

BRs, as promoted under UNESCO’s MAB Programme, offer a practical approach to achieving the SDGs by integrating biodiversity conservation, sustainable economic development, and socio-cultural engagement. The planned BR establishment initiative builds on Armenia’s international commitments and strategic development priorities.

2.2.1 International agreements supporting the BR approach:

Armenia's dedication to sustainable development is solidified through key international agreements:

Armenia–EU Comprehensive and Enhanced Partnership Agreement (CEPA): Effective 1 March 2021, CEPA serves as a comprehensive framework for political and economic cooperation. It includes commitments that align with key SDGs, such as environmental protection, sustainable development, and social inclusion — all of which are core components of BRs.

Kunming-Montreal Global Biodiversity Framework (KMGBF): Adopted under the Convention on Biological Diversity in December 2022 the KMGBF sets ambitious global goals and targets to halt and reverse biodiversity loss by 2050. Key targets include Target 2, which aims to ensure that at

[1] The designation 'DBR' (DBR) is used as a working title throughout this document. The final terminology may be subject to revision pending further discussion on the official naming and designation of the planned biosphere reserve.

least 30 percent of degraded ecosystems are under effective restoration by 2030, and Target 3, which seeks the effective conservation and management of at least 30 percent of terrestrial and inland water areas through protected areas and other effective area-based conservation measures (OECMs). Biosphere reserves provide practical landscapes to support the implementation of these targets by combining conservation, ecosystem restoration, and sustainable land use within an integrated, participatory governance framework.

2.2.2 Integration of the BR concept across government functions via the SDGs

The establishment and long-term functioning of a BR require inter-ministerial coordination. The BR concept is inherently cross-sectoral, and its goals align with the mandates of several ministries through their connection with specific SDGs:

- Ministry of Environment of the RA: Directly responsible for SDGs 6 (Clean Water and Sanitation), 13 (Climate Action), 14 (Life Below Water), and 15 (Life on Land), all of which are crucial for the establishment and management of BRs.
- Ministry of Economy of the RA: Focuses on SDGs 8 (Decent Work and Economic Growth) and 12 (Responsible Consumption and Production), supporting sustainable economic activities within and around BRs.
- Ministry of Education, Science, Culture and Sports of the RA: Focuses on SDG 4 (Quality Education), promoting environmental education and research, which is vital for BRs.
- Ministry of Territorial Administration and Infrastructure of the RA: Contributes to SDG 11 (Sustainable Cities and Communities), which often involves planning and infrastructure development compatible with BR principles.

2.2.3 Alignment of the Biosphere Reserve (BR) concept with strategic documents adopted by the government of the Republic of Armenia

The relevance of the BR concept in Armenia is further underscored by its close alignment with several key strategic policy documents adopted by the Government of Armenia, which emphasize sustainability, green growth, and climate resilience, all core principles of the UNESCO MAB Programme.

“Concept of Economic Policy of the Republic of Armenia for 2023–2030”: Although this concept does not explicitly refer to BRs, it outlines several priorities that strongly resonate with the BR approach, particularly in integrating sustainable development, innovation, and environmental protection.
Priority 1: emphasizes the formation and development of a knowledge-based and innovative economy, including substantial investment in education - a foundation for raising environmental awareness and fostering innovation consistent with BR principles.
Priority 5 (Sustainable Development, Green Economy, and Climate Change): sets out three key directions that align closely with BR objectives: (1) energy transition to mitigate climate impacts; (2) reduction of environmental degradation and risks to human health; and (3) sustainable management of natural resources. These goals directly support the balanced integration of conservation and development envisioned in the BR framework.

“Green and Sustainable Economic Development Strategy” (until 2030): This strategy positions the green economy as a central component of sustainable development and highlights the synergy between economic and environmental objectives. It describes the green economy as a

system where environmental protection and economic progress reinforce each other through innovation and efficiency. This model mirrors the multifunctional zoning and integrative approach of biosphere reserves. Furthermore, the strategy promotes long-term resource efficiency, institutional innovation, and equitable welfare improvement, all of which are essential dimensions of sustainable management in BRs.

In this context, the development of the DBR directly supports Armenia's strategic transition toward a green, knowledge-based, and climate-resilient economy, offering a model region for integrating conservation with sustainable territorial development.

2.3 Potential Analysis for BR Development in Armenia

In 2019, a potential analysis was conducted on a country-wide scale in Armenia. This involved the screening of potential regions for the establishment of a UNESCO BR. The work comprised a literature review, expert interviews, and two rounds of site visits to eight selected regions. Information was collected and assessed against UNESCO criteria, covering natural values, socio-economic conditions, scientific infrastructure, governance, and civil society engagement. The study provided a neutral analysis of the potential and constraints, summarised in a SWOT analysis for each region and in an overall comparative SWOT analysis. However, the study did not address the prioritisation and feasibility of future processes.

The study suggested that Dilijan National Park and its surroundings have considerable potential to be designated as a UNESCO BR. The region's strengths include cultural, ecological, and land-use diversity, supported by the infrastructure of Dilijan National Park and the strong presence and engagement of NGOs. Opportunities were particularly evident in sustainable forest management, ecotourism, and the promotion of local products. It was concluded that these factors create a solid foundation for developing a BR that links conservation with sustainable livelihoods. Nevertheless, at the time the study was conducted, it was perceived that there were some areas for significant improvement. These relate to illegal logging, the perception of forests as primarily an economic resource by local, and pressure on wildlife. Overall, the potential analysis concluded that Dilijan could serve as a model region for reconciling human – nature relations by shifting current forest use towards sustainable practices and providing alternative income sources through tourism and forest-based products. It was also suggested that the BR framework could contribute to climate adaptation, forest protection, and community development.

2.4 Legal Framework

The Republic of Armenia's national policy and legal framework for environmental protection are firmly rooted in its constitution, which enshrines the principles of sustainable development and environmental conservation. The Constitution mandates both state and individual responsibility towards environmental preservation.

The "Law on Environmental Impact Assessment and Expertise" establishes a rigorous framework for evaluating the potential environmental impacts of proposed projects and conceptual documents, ensuring public participation and thorough assessment before the implementation of projects or the adoption of conceptual documents, respectively. The Strategic Environmental Assessments (SEA) embedded in this law play a crucial role in integrating environmental considerations into policymaking.

The RAs “Law on Specially Protected Nature Areas” (SPNAs) categorizes and regulates various protected areas, including state reserves, sanctuaries and national parks. The law defines the protection regimes and aims to create ecological networks through ecological corridors and buffer zones. However, even though BRs are listed among the types of SPNAs, there appear to be gaps in the detailed regulations for BRs and the integration of community management and participation.

The Law outlines key directions for consideration in terms of enhancing governance, financing and professional capacities within Armenia's SPNAs. The Strategy identifies significant challenges, including the need for improved governance mechanisms, technical and financial resources and stakeholder engagement.

In terms of compatibility with UNESCO BR designation procedures, adjustments to Armenia's national legislation are required to ensure clear legal recognition and comprehensive protection regimes, as well as the effective management of buffer and transition zones. This includes addressing and resolving conflicts with existing land-use legislation, enhancing stakeholder participation and incorporating adaptive management practices.

The national legal framework underpins the importance of scientific research and monitoring within SPNAs. However, there is a need for more detailed regulations on research permits, data sharing and enforcement mechanisms. It is also crucial to enhance the monitoring system to include social and economic parameters, clear mandates, stakeholder involvement and a robust data management system.

While the term Biosphere Reserve is defined in the Law of the Republic of Armenia “On Specially Protected Nature Areas”, the current definition remains incomplete and does not fully reflect the concept suggested by the MAB Programme.

During the revision of the “Law on Specially Protected Nature Areas”, in spring 2024, numerous proposals were submitted regarding the legal provisions related to BRs. These proposals are currently under discussion and further refinement.

2.5 Implemented Activities and Achievements to Date

Within the framework of the project “Biosphere Reserves as Model Regions for Climate Change Mitigation and Adaptation - Capacity Development for the Establishment of the Dilijan Biosphere Reserve in Armenia” a number of capacity building, awareness-raising as well as participatory planning activities were implemented for the conceptualization of the Dilijan BR. These included a study tour to two German BRs, Autumn School in Armenia, four workshops with the Local Working Group (LWG) and three meetings of the Intergovernmental Steering Committee (SC), which was established within the framework of the project. More than 40 stakeholders on the local and 30 on the national level were reached and involved in the activities. Each workshop/meeting had its own objectives and outcomes. Table 1 below presents the details of these events.

Table 1: Descriptive Table of Meetings

Meeting Name	Meeting Date	Meeting Participants	Meeting Topic	Meeting Outcomes
Kick-Off-Workshop	February 22, 2024	More than 25 participants	Introducing UNESCO's MAB Programme, BR concept and potential analysis results for the biosphere reserve development in Armenia	Introduced concept and planned activities
SC Meeting 1	October 10, 2024	20 participants	Analysis of RA Legislation and Policy in the context of biosphere reserve establishment	Agreement on future meetings and exchange
SC Meeting 2	July 18, 2025	More than 25 participants	Discussion and agreement on the zoning of the DBR	Agreed zoning map of the DBR
SC Meeting 3	October 17, 2025	More than 30 participants	Discussion and agreement on the governance mechanisms of the DBR	Discussed possible governance mechanisms of the DBR
Inception workshop	February 20, 2024	32 participants	Informing about the project, establishing the LWG, introducing UNESCO's MAB Programme and BR concept as well as develop initial vision of the planned DBR	Local working group, consisting of 30 persons created
LWG Meeting 1	October 10, 2024	30 participants	Defining the DBR planning area, values and key sectors	Definition of the planned area
LWG Meeting 2	December 2, 2024	28 participants	Identifying key issues of DBR and transform them into opportunities	Map of values and vision of the DBR developed
LWG Meeting 3	March 31, 2025	40 participants	Discussion and agreement on the zoning and governance mechanisms of the DBR	Agreed zoning map and discussed governance mechanisms of the DBR

2.5.1 Outputs of the Working Group Meetings

A LWG was established under the project, bringing together approximately 35 representatives from municipalities, local communities, Dilijan National Park, non-governmental organizations, and educational institutions. Four LWG meetings were held; each addressed specific topics and produced key outcomes, summarized below.

Inception workshop: The inception workshop had two primary objectives: to introduce the MAB Concept and planned activities within the project as well as to develop an initial shared vision for the DBR.

The initial vision, which was developed and refined further in subsequent working group meetings envisages **economically diverse clusters that foster harmony between people and nature, while supporting a high quality of life through self-sufficient, sustainable agriculture and strong education systems**.

The first local working group meeting: During the first meeting of the LWG, the values and valuable areas of the planned DBR were identified, and potential territory of "Biosphere Reserve Planning Area" was agreed upon. This served as an important basis for targeting subsequent studies within the defined area. In addition, the Working Group identified the following six relevant priority directions for the DBR:

1. Environmental protection and nature conservation
2. Agriculture
3. Tourism
4. Culture and sports
5. Education
6. Industry

The second local working group meeting: This meeting focused on identifying and assessing the key risks, threats, and challenges relating to the three core functions of the planned DBR. Through a collaborative effort, these challenges were then reformulated as opportunities. The information gathered during this session forms a crucial basis for developing a strategic plan for the DBR. As a result of this work, objectives deriving from each function of the planned DBR were formulated.

The tables below summarize the outcomes of the discussions and group works within the meeting:

Table 2 (a): Conservation Function –

Identification of Issues and Barriers in the BR Planning Area and Proposals for Solutions

Issues, Barriers, Challenges	Proposals to Address the Issues
Climate change ● Floods, ● Overflows, ● Mudflows, ● River pollution, ● Reduction in biodiversity, ● Increase in the number of wildfires.	**Improve the normative and legislative framework:** ● Revise urban planning norms. ● Encourage green certification processes for construction and economic activities. **Promote business–civil society collaboration (facilitating the implementation of CSR strategies)** ● Encourage decentralization of businesses ● Enhance the business environment (providing incentives, certification) ● Promote green practices among households **Foster education and professional training:** ● Promote sustainable household behaviour. **Enhance institutional capacity in the forestry sector:** ● Improve conservation quality and monitoring mechanisms. ● Promote scientific research and awareness programs. **Strengthen participatory governance:** ● Ensure environmentalists' inclusion in urban planning councils.
Forest degradation ● Loss of biodiversity ● Reduction in water resources ● Fires	
Unregulated urbanization ● Air pollution ● Loss of biodiversity ● River pollution due to sewage and waste	
Conventional agriculture ● Soil pollution with pesticides ● Overgrazing	
Mining ● Disruption of river ecosystems	
Poaching ● Mass fishing using electrofishing, ● Hunting of wildlife in forests, ● Illegal gathering of non-timber forest products	
Tourism ● Pollution and over-collection	

Table 2 (b): Development function

Identification of issues and barriers in the planning area and their transformation into opportunities

Issues, Barriers, Challenge	Opportunities for Development through their Presence (Positive Aspects)
1. Military security	● Utilize old factory buildings, ● Develop military-industrial complexes, ● Involve international organizations in such vulnerable places.
2. Lack of a socio-economic strategy	● Promote evolutionary development of the economy
3. Over-concentration of the economy in one sector (tourism)	● Establish agricultural product markets and support eco-tourism in rural communities. ● Create opportunities for knowledge and experience exchange. ● Foster development of ecotourism in rural communities. ● Expand the potential for tourism scaling and establish non-formal educational centres. ● Use venue for organizing corporate events.
4. Youth migration	● Foster development of folk tourism ● Establish networking centre for experience and knowledge exchange
5. Unfavourable conditions for the investment environment	● More resilient businesses ● Greater potential for self-education ● Increased potential for innovation
6. Degradation of ecosystems	● Develop waste recycling initiatives and greenhouse-based agricultural enterprises.

Table 2(c): Logistic support function

Identification of issues and barriers in the planning area and proposals for solutions

Issues, Barriers, Challenge	Opportunities for Development through their Presence (positive aspects)
Lack of collaboration between researchers and the government	**Enhance formal education:** ● Include information about biosphere reserves in formal education curricula. **Promote non-formal and informal education:** ● Organize eco-camps and hiking activities to engage the public. **Facilitate knowledge exchange:** ● Arrange experience-sharing sessions with foreign experts. **Raise public awareness:** ● Conduct awareness campaigns through public television and social media.
Shortage of sectoral specialists	
Communication issues (lack of awareness)	
Lack of a centralized database	
Accessibility issues to existing data	
Problems with the quality of education	

The third local working group meeting: The objective of the third local meeting aimed to facilitate stakeholder consultation and gather feedback on the proposed zoning of the planned DBR as well as initiate discussion about potential governance models for the DBR. As a result of the discussions, the proposed zoning map underwent modifications and received its final form (for more details see 3.9).

3. The Planned Dilijan Biosphere Reserve

3.1 General Description of the Dilijan Biosphere Reserve (Geographic location, communities and settlements, administrative boundaries, protected areas)

Location: Lori, Tavush, and Gegharkunik Regions, Republic of Armenia

Area: Approximately 116,669 ha

Communities: 6 Settlements: 22 Population: 75064

Protected areas: 6

Elevation above sea level: 650-3,100 m

(Proposed) Status: Biosphere Reserve

Geographic location: The planned DBR is located in the north-east of the Republic of Armenia, spanning the Lori, Tavush, and Gegharkunik Regions. The area is notable for its diverse topography and geographical conditions.

The planned DBR is situated within the Lesser Caucasus Mountain range and extends across the slopes of the Pambak, Areguni, Miapor, Ijevan, and Halab mountains. The area´s elevation ranges from 650 to 3,100 meters above sea level. The eastern part of the area includes the southern slopes of the Miapor mountain range, which descend into the Getik River valley. To the east and north-east, the Ijevan mountain range is bordered by the Aghstev River. Here, the slopes are gentler, whereas in the higher mountainous sections (in the upper parts of Hovk and other communities), they are quite steep. To the southwest of the Ijevan mountain range lies the Halab mountain range. The slopes here are particularly steep in their western part. To the west and southwest, the planned DBR is enclosed by the Pambak mountain range, which borders the Areguni mountain range to the south, near the Sevan Pass.

The entire planned DBR is located within the Aghstev River basin, largely covering the main Aghstev valley, the basin of its largest tributary (Getik) and the basins of several smaller tributaries. The area is rich in wetlands (around the communities of Lermontovo, Margahovit and Fioletovo, in the middle reaches of the Aghstev River, etc.) and several lakes (Parz, Gosh (Figure 1), Hovk, etc.).

Figure 1. Lake Gosh located in Dilijan National Park (source: www.gotodili.com)

The Aghstev River, in turn, belongs to the Kura River basin, being one of its right-bank tributaries. The Kura River and the Aras River both belong to the Caspian Sea basin. The area features a rich mosaic of ecosystems, including pastures, hayfields, (broadleaf) forests, meadow ecosystems, river and lake ecosystems, and rocky and cliff habitats, as well as localized wetlands.

Communities and Settlements: The planned DBR partly includes municipalities (communities, *hamaynkner*) located in three regions. In Lori region, the municipalities of Lermontovo, Pambak, and Fioletovo are included. In Tavush region, the Dilijan municipality is part of the planned DBR, while in Gegharkunik region, the municipalities of Chambarak and Sevan are included. In total, the planned DBR comprises six municipalities (see Figure 2 and Table 3).

The table below shows the municipalities and the settlements included within the boundaries of the planned DBR:

Table 3: Communities and settlements of the planned 'Dilijan BR'

Region	Municipalities	Settlements	Area, ha
Lori	Lermontovo	Antarashen	1,071
		Lermontovo	2,542
	Pambak	Margahovit	11,698
	Fioletovo	Fioletovo	4,436
Tavush	Dilijan	Aghavnavank	6,910
		Gosh	8,940
		Dilijan	12,050
		Teghut	12,061
		Khachardzan	5,579
		Haghartsin	12,287
		Hovk	5,353
Gegharkunik	Chambarak	Aygut	6,410
		Antaramej	1,623
		Getik	2,747
		Dprabak	4,060
		Drakhtik	2,388
		Ttujur	3,104
		Kalavan	1,770
		Dzoravank	1,541
		Chambarak	6,000
		Martuni	3,268
	Sevan	Tsovagyugh	787
		Semyonovka	44.0

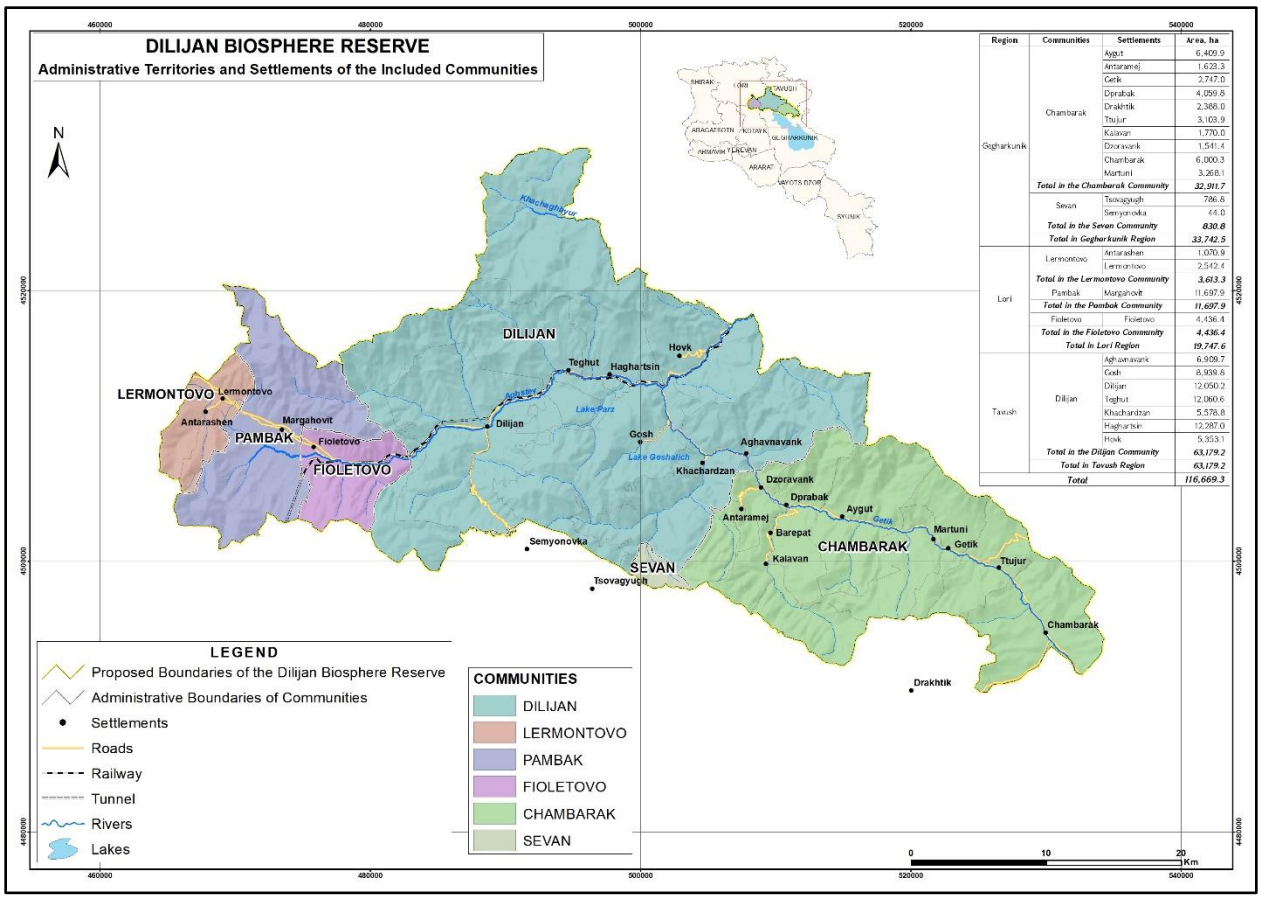
Total			**116,669.3**

Administrative boundaries: The boundary definition process for the planned DBR was carried out through a comprehensive and scientifically grounded methodology. This approach combined ecological assessments, expert analyses, and extensive stakeholder consultations to ensure that the proposed delineation reflects both environmental and socio-economic realities of the region.

Key factors guiding the definition of the boundaries included the following:

- Consideration of the entire Aghstev River basin as the core hydrological framework of the area;
- Inclusion of Dilijan National Park and adjacent protected areas to ensure ecological values and connectivity;
- Integration of results from flora, fauna, and socio-economic studies, incorporating expert recommendations;
- Identification and inclusion of important habitats for conservation;
- Consideration of the administrative boundaries of local self-governing bodies (LSGBs) that overlap with existing protected areas;
- Incorporation of local consultations and community input, including traditional land-use patterns, livelihoods, and expressed priorities from affected villages and stakeholders
- Consideration of ecosystem integrity to maintain functional ecological linkages;
- Alignment of all spatial considerations with the region's topographic and landscape characteristics.

This integrative process ensured that the proposed boundaries of the DBR are ecologically coherent, administratively feasible, and supportive of long-term conservation and sustainable development objectives.



Region	Communities	Settlements	Area, ha
Gegharkunik	Chambarak	Aygut	6,409.9
		Antaramej	1,623.3
		Getik	2,747.0
		Dprabak	4,059.8
		Drakhtik	2,388.0
		Ttujur	3,103.9
		Kalavan	1,770.0
		Dzoravank	1,541.4
		Chambarak	6,000.3
		Martuni	3,268.1
	Total in the Chambarak Community		*32,911.7*
	Sevan	Tsovagyugh	786.8
		Semyonovka	44.0
	Total in the Sevan Community		*830.8*
	Total in Gegharkunik Region		*33,742.5*
Lori	Lermontovo	Antarashen	1,070.9
		Lermontovo	2,542.4
	Total in the Lermontovo Community		*3,613.3*
	Pambak	Margahovit	11,697.9
	Total in the Pambak Community		*11,697.9*
	Fioletovo	Fioletovo	4,436.4
	Total in the Fioletovo Community		*4,436.4*
	Total in Lori Region		*19,747.6*
Tavush	Dilijan	Aghavnavank	6,909.7
		Gosh	8,938.8
		Dilijan	12,060.2
		Teghut	12,060.6
		Khachardzan	5,578.8
		Haghartsin	12,287.0
		Hovk	5,353.1
	Total in the Dilijan Community		*63,179.2*
	Total in Tavush Region		*63,179.2*
	Total		*116,669.3*

Figure 2. Communities and settlements within the planned Dilijan Biosphere Reserve

Protected areas: The planned DBR represents a comprehensive network of PAs comprising six distinct territories that together safeguard one of Armenia's most ecologically significant regions (see Figure 3). This integrated conservation system includes the Dilijan National Park as its core component, complemented by five strategically positioned state reserves distributed across three of Armenia's administrative regions.

The territorial distribution encompasses the Lori Region with two state sanctuaries – "Rhododendron Caucasicum" and Margahovit Sanctuary – which protect critical highland habitats. In the Tavush Region, the system incorporates the Aghavnavank Grove and Gandzakar Sanctuaries, preserving vital forest ecosystems. The network also extends into the Gegharkunik Region through the Getik Sanctuary. In addition to these protected areas, it is important to acknowledge other conservation designations and initiatives within the region. Dilijan National Park is the Emerald Network candidate site - "Dilijan" national park; SiteCode: AM0000011[2] - thereby aligning the DBR core area with recognized European conservation standards. Moreover, the Lori Region contains a part of Community Conserved Area (CCA), where local communities actively participate in the Eco-Corridor Caucasus initiative, supported by WWF. The CCA enhances ecological connectivity between key habitats across northern Armenia in a functional network. Together, the extraordinary concentration of biodiversity, encompassing endemic

[2] https://emerald.eea.europa.eu/

species, rare species communities, and intact ecosystem processes, and community engagement in conservation initiatives establishes DBR as a cornerstone of Armenia's natural heritage and a critical component of regional conservation strategies aimed at safeguarding Caucasian biodiversity for future generations across borders and scales.

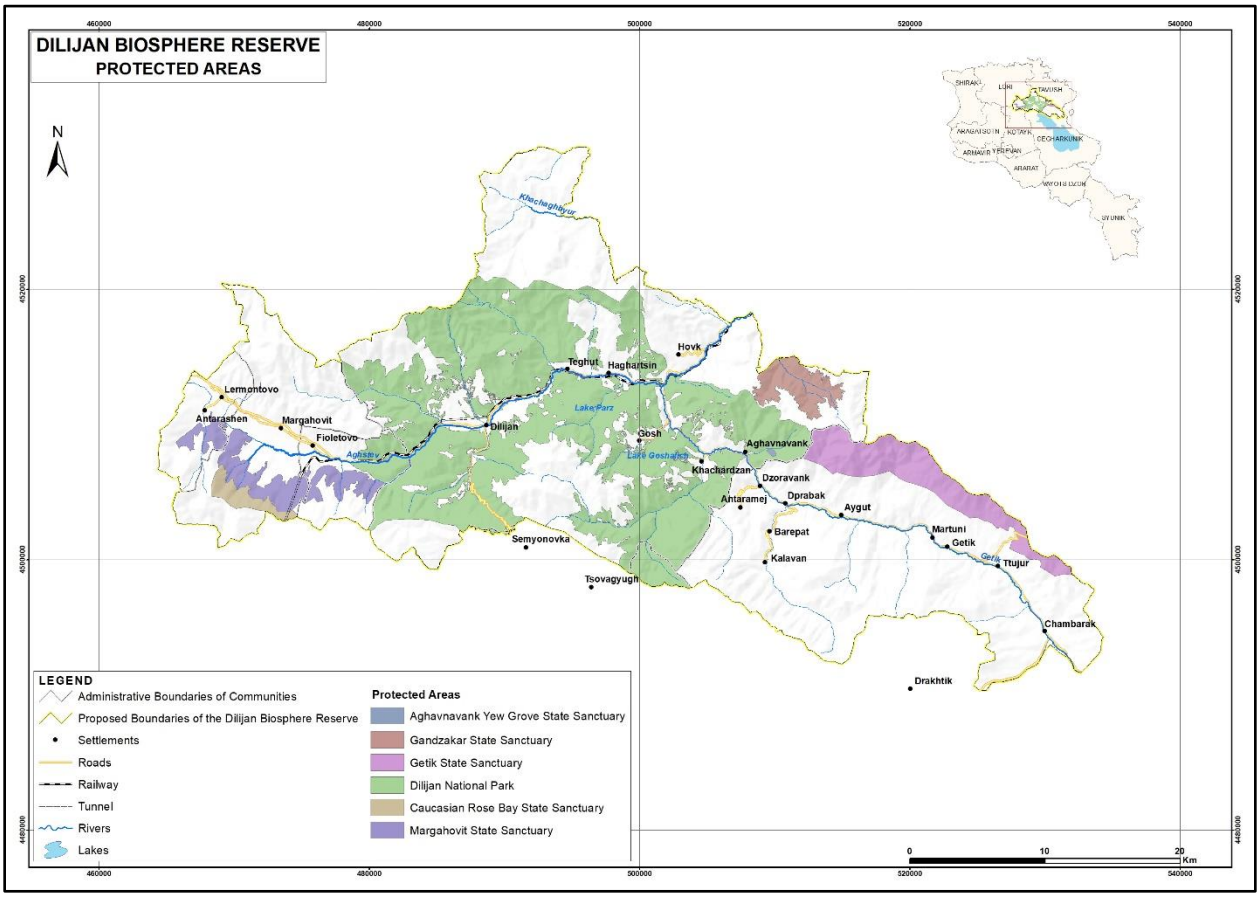


Figure 3. Protected areas within the planned Dilijan Biosphere Reserve

3.2 Environmental Profile of the planned Dilijan Biosphere Reserve

As outlined in the UNESCO Technical Guidelines for Biosphere Reserves (UNESCO, 2022), “biosphere reserves should be representative of their biogeographical region and of particular significance for biodiversity.” In line with this principle, comprehensive assessments of the flora and fauna within the planned DBR area were undertaken in 2024 and 2025 to strengthen the scientific foundation for the site’s nomination by evaluating its ecological representativeness, biodiversity significance, and conservation potential. The findings of these assessments - documented in the Fauna Assessment of the Proposed Area of the Dilijan Biosphere Reserve (Arakelyan, 2025) and the Flora Assessment of the Proposed Area of the Dilijan Biosphere Reserve (Gabrielyan, 2025) - provide the basis for defining conservation priorities and management strategies. Subsequent chapters draw directly on the results of these studies.

3.2.1 Flora

The planned DBR is a significant center of Caucasian biodiversity. The area is estimated to host approximately 2,000 species of higher vascular plants. Its landscape is characterized by a mosaic of mixed Caucasian forests, including both deciduous and coniferous woodlands. The primary forest-forming species include *Fagus orientalis* (Oriental beech), *Quercus macranthera* (Caucasian oak), *Quercus iberica* (Georgian oak), *Carpinus betulus* (European hornbeam), *Carpinus orientalis* (Oriental hornbeam), and *Fraxinus excelsior* (Common ash).

Beyond these dominant stands, the area supports several species of high biological and environmental importance with limited distributions, such as *Taxus baccata* (European yew) and *Pinus kochiana* (Caucasian pine). Reflecting its high conservation value, the DBR area serves as a critical refuge for approximately 40 species listed in the Red Data Book of Armenia, particularly concentrated around the Getik River basin, the Margahovit area, and the vicinities of Dilijan and Ijevan.

The presence of these rare and threatened species underscores the ecological significance of the DBR and justifies the implementation of strict conservation measures within its core zones.

3.2.2 Fauna

The planned DBR is characterised by its exceptional ecological value, including various habitats of essential importance for biodiversity conservation.

The territory of the planned DBR, particularly forests edges and transitional areas between forests and meadows, is roamed by many of the region's mammals of which 9 are recorded in the Red Data Book of Animals of Armenia (2010), and 3 are on the IUCN Red List of Threatened Species (2024). Overall, the rich fauna of the planned DBR includes numerous large predators such as leopard, lynx, brown bear, as well as various species of bats, rodents, and reptiles (including eight endemic species of rock lizard, seven of which are recorded in the Red Data Book of Armenia and six listed on the IUCN Red List), aquatic animals (including the European otter) and numerous bird species.

Endemic and endangered species that deserve special attention include the parthenogenetic lizards (Darevskia dahli, D. rostombekowi, and D. unisexualis), the Caucasian grouse (Lyrurus mlokosiewiczi), the Urartian rat snake (Elaphe urartica) and the Armenian birch mouse (Sicista armenica). A reintroduction programme for red deer (Cervus elaphus maral) is currently underway. The conservation and sustainable management of the critical habitats of the above mentioned species within the planned DBR is essential for preserving Armenia's natural heritage and ensuring its transmission to future generations.

3.2.3 Critical Habitats

The planned DBR is distinguished by four main critical habitats: mature and old-growth forests, cliff ecosystems, freshwater ecosystems (rivers, lakes), and subalpine and alpine meadows. The characteristics of the main critical habitats are outlined below.

Old forests with mature trees: Old-growth forests are characterized by mature trees that create unique ecological niches for various species. These forests contain large trees and deadwood, which contribute to the rich biodiversity of the region. Old forests serve as critical habitats for:

- Large mammals – including the leopard (*Panthera pardus*), the European wildcat (*Felis silvestris silvestris*), the Eurasian lynx (*Lynx lynx*), the brown bear (*Ursus arctos*), the rock badger (*Meles canescens*), roe deer (*Capreolus capreolus*) and wild boar (*Sus scrofa*), which support food chains;
- Bats – including the brown long-eared bat (*Plecotus auritus*), the European free-tailed bat (*Tadarida teniotis*), and Bechstein's bat (*Myotis bechsteini*) which serve as indicators of forest health;
- Rodents – including the Persian squirrel (*Sciurus anomalus*), the forest dormouse (*Dryomys nitedula*), and field mice (*Apodemus ponticus, A. uralensis*), aid in seed dispersal;
- Birds – 63 breeding species, including flycatchers, warblers, tits, and woodpeckers such as the black woodpecker (*Dryocopus martius*).

Old forests also function as ecological corridors, enabling species migration and gene flow, while playing a pivotal role in climate regulation.

Cliffs along roads and riverside: Cliff ecosystems are vital for biodiversity conservation, harbouring ancient and diverse communities of invertebrates, reptiles, birds, and small mammals. These rocky environments provide specialised habitats and serve as crucial nesting and roosting sites.

Cliffs possess significant conservation value; studies indicate that they can harbor between 35% and 66% of endemic plant taxa, thereby serving as critical refuges for rare species (Fitzsimons & Michael, 2017). In the planned DBR, cliffs likewise play a vital role in biodiversity conservation, providing habitats for rare and endemic species.

Cliff ecosystems serve as critical habitats for:

- Endemic rock lizards – eight species, including the endangered parthenogenetic species Darevskia dahli, D. rostombekowi, and D. unisexualis;
- Reptiles – including the Urartian rat snake (Elaphe urartica) and the Mediterranean cat snake (Telescopus fallax), both of which are listed in Armenia's Red Book
- Birds – including the long-legged buzzard (Buteo rufinus), the red-billed chough (Pyrrhocorax pyrrhocorax), and the black redstart (Phoenicurus ochruros), which use cliffs for nesting, hunting, and roosting;
- Raptors – various species that nest in cliffs scattered throughout deep canyons;
- Bats – utilizing cliffs as roosting habitats.

Cliffs require site-specific conservation controls tailored to their specific location and should be included as a priority ecosystem in global biodiversity frameworks to help curb biodiversity loss by 2030.

Lakes and rivers: Freshwater habitats are under mounting pressure, with populations of freshwater species declining at an alarming rate, while pollution and flow alterations further threaten aquatic biodiversity. These ecosystems are vital for sustaining biodiversity and provide essential services such as water filtration, flood regulation, and climate regulation. Moreover, rivers and lakes function as key ecological corridors, facilitating species movement and genetic exchange, and supporting a wide array of aquatic and semi-aquatic organisms.

Despite high self-purification capacity, the lack of mining industry regulation, municipal and industrial wastewater treatment plants, and other factors have caused the rivers to be intensively

polluted with various contaminants. As a result, the aquatic ecosystem of the rivers is gradually starting to degrade, with changes in their water-chemical composition and regime, and the loss of aquatic biodiversity. Representative cases already exist in Armenia, including the Akhtala, Kavart, Karchavan, and Getar rivers, where, due to the effects of mining activities or domestic wastewater and mismanagement, the aquatic biodiversity has completely disappeared, turning these rivers into "wastewater channels" (Margaryan, 2025).

Freshwater ecosystems serve as critical habitats for:

- Endemic and threatened fish –including Capoeta sevangi
- Amphibians and reptiles –including various species that depend on aquatic environments;
- Mammals – including the European otter (Lutra lutra), which relies on clean freshwater systems for survival;
- Waterfowl and wading birds – including herons (Ardeidae), egrets (Ardea spp.), cormorants (Phalacrocorax spp.), pelicans (Pelecanus spp.), rails (Rallidae), coots (Fulica spp.), and grebes (Podicipedidae), which are highly adapted to wetland environments and depend on them for nesting, feeding, and migration.

The diverse bird communities depend on wetlands and riparian zones for essential support, which is why conserving freshwater habitats is crucial for maintaining ecosystem integrity and preventing further biodiversity loss.

Alpine meadows: Alpine and subalpine meadows are ecosystems that support a unique assemblage of flora and fauna adapted to extreme conditions. These ecosystems serve as vital seasonal habitats and are critical for maintaining biodiversity at high elevations.

Alpine meadows serve as critical habitats for:

- **Large mammals** – including the grey wolf (*Canis lupus*), the red fox (*Vulpes vulpes*), and the European hare (*Lepus europaeus*), which are integral to the high-altitude food web.
- **Endemic birds** – including the vulnerable Caucasian grouse (*Lyrurus mlokosiewiczi*), an endemic species requiring special conservation efforts.
- **Meadow birds** – including the corn crake (*Crex crex*), the grasshopper warbler (*Locustella naevia*), and the common rosefinch (*Carpodacus erythrinus*).
- **Endemic mammals** – including the Armenian birch mouse (*Sicista armenica*), which thrives in these meadows, especially in the northern Sevan basin.
- **Grazing herbivores** – various species that utilize these areas as a seasonal habitat.

These high-altitude ecosystems host rare endemic species, animal species specifically adapted to alpine conditions, making their conservation essential for preserving unique biodiversity (Figure 4).

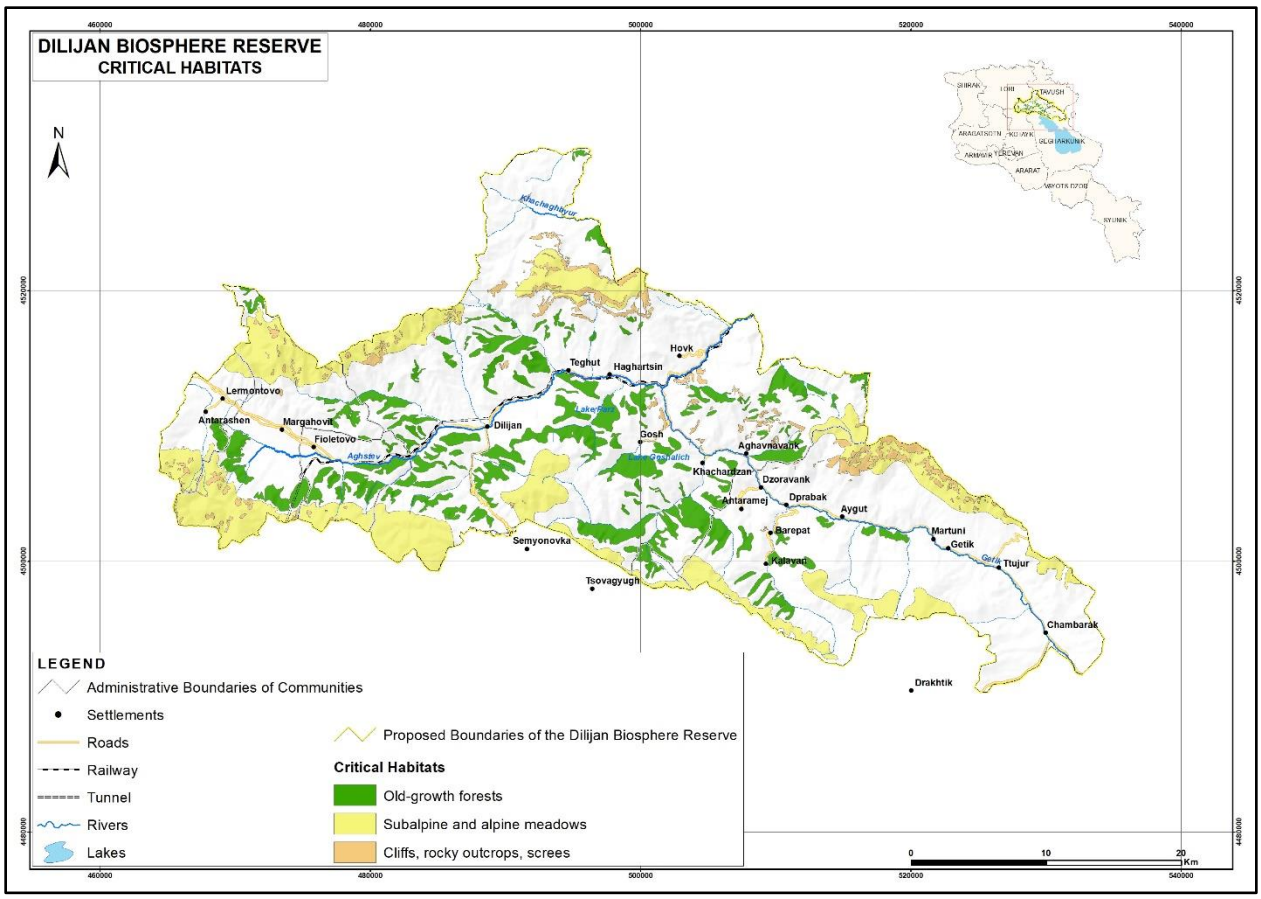


Figure 4. Critical habitats of the planned Dilijan Biosphere Reserve

3.2.4 Climate Change

The region of the planned DBR is vulnerable to multiple climate-related impacts common to many parts of Armenia, particularly increased water stress, shifting species distributions, ecosystem degradation, and heightened geophysical hazards. These challenges have a detrimental effect on various ecosystems, ranging from forests and subalpine zones to rivers and agricultural lands. They also have a direct impact on local communities whose livelihoods depend on agriculture, forestry, and tourism (a.o. Aleksanyan et al., 2015; Igityan et al., 2024). While the effects of climate change have not been directly measured in all instances, proxy indicators such as range shifts in insects and birds, declining aquatic biodiversity, and changing hydrological patterns suggest growing instability and risk.

Specifically, the region's forests are subject to ongoing degradation and drought stress, with the subalpine zone supporting only 14% of Armenia's woody plant taxa, many of which are vulnerable or relic species (Varadanyan & Mkhitaryan, 2018). River ecosystems demonstrate declining water availability and reduced macroinvertebrate diversity in proximity to recreational areas, indicating altered hydrology and pollution pressures. The increased intensity of rainfall events has been identified as a factor contributing to landslide reactivation, which in turn poses a threat to mountain villages and infrastructure (WWF Armenia, 2024; Aleksanyan et al., 2015).

The documentation of adaptation efforts in Tavush and Lori Region includes community-based landslide monitoring, adaptive water management informed by precipitation scenarios, and cooperative biodiversity monitoring. Despite the absence of mitigation strategies, the Biosphere Reserve framework presents a valuable opportunity to integrate these approaches, promote long-term climate and biodiversity monitoring, and foster coordinated, landscape-level resilience that supports both ecosystems and local communities (Igityan et al., 2024; Asatryan et al., 2024).

3.3 Cultural Heritage of the Planned Dilijan Biosphere Reserve

The territory of the planned DBR is culturally rich, featuring historical, religious, social, and ethnic values. As a long-standing cultural and spiritual hub, it preserves both tangible heritage, such as monuments, monasteries, and architecture, as well as intangible heritage, such as traditions, arts, crafts, and local identity. These cultural expressions are deeply intertwined with the surrounding ecosystems.

Historical and cultural significance: The planned DBR is a key centre of Armenia's cultural heritage, where core elements of Armenian culture and identity emerged. Evidence of the ancient foundation of Armenian civilization can be found in the Neolithic settlements and archaeological finds.

The historical and cultural heritage of the planned DBR includes the medieval monastic complexes of Haghartsin (Figure 5), Goshavank, and Makaravank. These sites were not merely religious institutions, but also vital hubs for the development of medieval Armenian science and art. Notably, Mkhitar Gosh[3] penned his seminal work on Armenian medieval jurisprudence, 'Datastanagirk', here the 12th–13th centuries. The area also boasts numerous medieval fortresses, particularly within the consolidated Chambarak community. Since the 19th century, Dilijan has been a cultural and intellectual centre, inspiring Armenian and Russian writers, artists, and composers from the early 20th century. The planned DBR features exceptional examples of Armenian architecture and art, including 19th century urban architecture in the city of Dilijan. Sharambeyan Street is a prime example of the area's traditional architectural style, blending Armenian and Russian influences.

Dilijan has a traditional craft centre. Several museums and cultural centres preserve archaeological, ethnographic, and historical artefacts.

Intangible cultural heritage: The planned DBR is rich in intangible cultural heritage, encompassing folk traditions, crafts, folklore, and knowledge. Traditional crafts such as wood carving, pottery, and carpet weaving skills and traditions are passed down through the generations, with many items being made using sustainably sourced natural materials from local forests and landscapes. These cultural expressions are deeply intertwined with the surrounding ecosystems: forest resources influence craftsmanship and vernacular architecture, while traditional herding and haymaking practices demonstrate a profound knowledge and understanding of pasture and

[3] Mkhitar Gosh (c. 1130 – 1213) was a prominent Armenian medieval scholar, priest, jurist, theologian, writer, and public figure. He is best known for compiling the *Datastanagirk* (Lawcode), one of the earliest comprehensive codes of Armenian civil and canon law, which was widely used in Armenian territories and influenced later legal traditions. Gosh also founded the Nor Getik monastery (later known as Goshavank), where he taught and contributed to the intellectual and spiritual life of his time. See Wikipedia, s.v. "Mkhitar Gosh," https://en.wikipedia.org/wiki/Mkhitar_Gosh

meadow. Rivers, lakes and sacred natural sites hold spiritual and medicinal significance. The region's distinctive traditional cuisine features unique recipes for grilled meats, homemade cheeses, herbal teas, honey, and pastries and draws on local biodiversity and seasonal produce.

Figure 5. Haghartsin monastery (9th-11th centuries) (source: www.gotodili.com)

Traditional holidays such as Vardavar, Trndez, and Hambardzoum are celebrated, blending Christian and pre-Christian customs with local variations.

The remarkable cultural diversity of the planned DBR stems from its rich ethnic mix. Interaction between Armenians, Russians, Molokans, Yezidis, and other groups has shaped a unique cultural environment. The Molokan communities in Lermontovo and Fioletovo are particularly significant in this regard, as these communities have preserved their traditional way of life, including their cuisine, religious ceremonies, agricultural practices and household customs, thereby enriching the region's cultural landscape.

Overall, the cultural significance of the planned DBR is vast, encompassing both tangible and intangible heritage. It reflects Armenian cultural development from ancient times to the present day and remains a source of inspiration and a centre for preserving cultural identity. Tangible and intangible heritage and natural ecosystems are inextricably linked, forming a vibrant biocultural tapestry in which traditions, local knowledge and ecological stewardship are closely intertwined.

This enduring relationship between people and place sustains not only the local biodiversity, but also cultural resilience and continuity.

3.4 Socio-Economic Profile of planned Dilijan Biosphere Reserve

The socio-economic profile presented in this chapter is based primarily on two comprehensive reports: “Socio-Economic Assessment of the Proposed Area of the Dilijan Biosphere Reserve” (Markosyan & Sargsyan, 2025) and “An Analysis of Potentials for UNESCO Biosphere Reserve Establishment” (Salzer et al., 2019). Unless otherwise indicated, all data and interpretations in this chapter are drawn from these sources.

The area under consideration covers approximately 116,669 hectares and spans the Lori, Tavush, and Gegharkunik Regions of the Republic of Armenia. Within this territory, there are five communities comprising a total of 23 settlements. The combined population of these settlements is approximately 75,064 inhabitants. This population comprises a mix of urban and rural residents, reflecting the region's diverse demographic composition. The majority of the population in the settlements of Lori, Tavush, and Gegharkunik Regions are ethnic Armenians who predominantly adhere to the Armenian Apostolic Church. In Lori, small communities of Spiritual Christians from Russia, known as Molokans, reside in villages such as Fioletovo and Lermontovo. These communities maintain their distinct language, cultural and land-use practices and traditionally engage primarily in cattle breeding and farming (notably producing pickled cabbage for sale in Yerevan). In contrast, Gegharkunik is almost entirely ethnically Armenian.

Economic Activities: The planned DBR area is characterized by a diversified yet uneven economy, with over 60% of employment concentrated in the service sector (including tourism, trade, and public administration), around 15–20% in agriculture, and approximately 10–15% in industry and construction. While tourism is the most rapidly expanding sector of the local economy, traditional agriculture and forestry continue to form the backbone of rural livelihoods. The economic composition of the region, which integrates emerging service industries with long-standing natural-resource-based activities, provides a robust foundation for the integration of the three core UNESCO Biosphere Reserve functions: conservation, sustainable economic development, and education and research.

Within this context, tourism is a sector that is distinguished by its dynamism and rapid evolution. The region offers a variety of tourism types, including ecotourism, wellness and resort tourism, cultural tourism, adventure tourism, rural tourism and gastronomic tourism. Among these, nature-based and cultural tourism are of particular relevance to the objectives of a BR. The tourism and hospitality sector is estimated to employ 2,000–2,500 people across Dilijan, the surrounding communities, and Yenokavan, with growth also evident in Ijevan. It encompasses more than 300 accommodation facilities and attracts approximately 130,000–150,000 visitors per year, predominantly domestic but with a steadily rising share of international tourists.

The significance of this sector for the planned DBR is twofold. Firstly, the success of the tourism industry is contingent upon the pristine condition of the area's natural assets, most notably Dilijan National Park and the surrounding landscapes. Secondly, the long-term success of the planned DBR is inseparable from the conservation and sustainable management of these ecosystems.

The forestry sector encompasses the harvesting of timber and non-timber forest products, such as berries, mushrooms and medicinal herbs. These activities are concentrated mainly in areas

near human settlements, where there is high demand for timber and firewood. Adopting sustainable forestry practices is essential for preserving the area's ecological integrity, supporting biodiversity, and ensuring the long-term availability of these resources for local communities.

The local production of food and artisanal goods is a significant component of the regional economy. It is estimated that 25-30% of rural households are engaged in small-scale activities, including beekeeping, dairy and wine production, food preservation, walnut processing, and traditional crafts. Larger enterprises, including the Ijevan Wine Factory, in conjunction with several dairies and breweries, contribute to the local employment and household income.

The construction sector is one of the primary sources of employment in the area, while industrial and light manufacturing activities in Ijevan are predominantly oriented towards textiles, food processing, bentonite extraction, and beverage production.

Linking local products to environmentally responsible land use and conservation in line with the planned DBR vision and principles can strengthen the resilience of local communities, enhance the region's ecological value and lay the groundwork for sustainable tourism experiences. Certification schemes or regional branding tied to sustainability could further encourage responsible production, raise awareness among residents and visitors alike, and draw attention to the BR's unique natural and cultural heritage.

Migration & regional challenges: According to a report by the World Bank (2024), high poverty levels and limited employment opportunities are significant drivers of migration in the region. Border communities, in particular, have high out-migration rates and experience poverty levels that are higher than the national average. The 44-day war and subsequent border tensions have exacerbated fears, leading to outmigration. Many residents are relocating to Yerevan in search of better opportunities, as high poverty levels and limited job prospects persist in these regions. Furthermore, youth unemployment remains a critical issue, contributing to the outflow of younger populations in search of better prospects elsewhere.

3.5 Science and Education

The planned DBR has a well-developed educational and cultural infrastructure providing a solid foundation for fulfilling UNESCO’s science and education objectives. Access to education is ensured throughout the area via an extensive network of schools, kindergartens, vocational colleges, and higher education institutions. Dilijan itself has thirteen general education schools, eight kindergartens, three vocational education institutions, and a branch of the Yerevan State Academy of Fine Arts. All rural settlements within the consolidated Dilijan community have either primary or secondary schools, and some also have kindergartens. Similar access exists in Chambarak, Margahovit, Fioletovo, and Lermontovo, although the availability of kindergartens varies across rural settlements.

In addition to formal institutions, the area is home to internationally recognised centres such as the UWC Dilijan (an international boarding school fostering peace and sustainability through education), the TUMO Center for Creative Technologies (providing digital and creative learning opportunities) (see Figure 6); and the Italian Apicius International School of Hospitality (offering professional training in tourism and hospitality). These institutions play a critical role in developing human capital and preparing the younger generation for active participation in sustainable development.

Partnerships with institutions of the National Academy of Sciences of Armenia, including the Institute of Botany after A.L. Takhtajyan and the Scientific Centre of Zoology and Hydroecology, support scientific research and monitoring activities. Their work on biodiversity, ecosystems, and applied conservation provides a scientific foundation for evidence-based management of the planned BR.

Community-based educational programmes, often implemented by NGOs and local organisations, complement formal education by raising awareness about environmental protection, sustainable agriculture, and eco-tourism. These activities strengthen local engagement and link science with practical knowledge for sustainable livelihoods.

Figure 6. TUMO Dilijan

Overall, the scientific and educational landscape of the planned DBR is diverse and multi-level, encompassing formal education, international schools, cultural and vocational training, scientific research, and community awareness programs. This integrated framework positions the BR as a living laboratory that supports the three core functions of UNESCO Biosphere Reserves – conservation, development, and logistical support – while also ensuring equal access to education for local communities.

3.6 Key Actors (Stakeholders)

Table 4: Key actors (stakeholders)

Local Stakeholders	Regions	Lori	Municipalities	Lermontovo
				Pambak
				Fioletovo
		Tavush		Dilijan
		Gegharkunik		Chambarak
	NGOs	Youth Cooperation Center of Dilijan		
		Youth Ideas		
		Ecopolicy Environment Center for Secure and Developed Community		
		Areguni		
	Businesses	Orion Dilijan		
		Green Rock Management Group		
		Nature Rooms-Cozy Cabin in the Woods Guesthouse		
	Foundation	World Wide Fund for Nature (WWF-Armenia)		
		Caucasus Nature Fund (CNF)		
		'Meghvashkhar' Beekeeping Development		
		'Nran Hatik' Community Development		
Stakeholders of the RA Government	Ministry of Environment of RA			
	Ministry of Economy of RA			
	Ministry of Education, Science, Culture and Sport of RA			
	Ministry of Territorial Administration and Infrastructure of RA			
	Ministry of Foreign Affairs of RA			
	Urban Development Committee of RA			
	Cadastre Committee			
	Tourism Committee (Ministry of Economy of RA)			
(Research) Institutions	Acopian Center for the Environment (AUA)			
	Scientific Center for Hydroecology and Zoology			
	Institute Of Botany After A. Takhtajyan			
	Center For Ecological-Noosphere Studies of NAS RA State			

3.7 Vision and Goals of the Planned Dilijan Biosphere Reserve

During the inception workshops in Dilijan, conducted within the framework of the project "Biosphere Reserves as Model Regions for Climate Change Mitigation and Adaptation – Capacity Development for the Establishment of the Dilijan Biosphere Reserve in Armenia," the working groups jointly formulated a vision for the future Dilijan Biosphere Reserve. This vision was subsequently refined in follow-up meetings and can be summarized as follows:

A vision of economically diverse clusters that foster harmony between people and nature, while ensuring a high quality of life through self-sufficient, sustainable agriculture and strong education systems.

During the 3rd local working group meeting, the key initial goals of the DBR were defined within the framework of each BR function:

Conservation Function

- Ensure sustainable forest management by improving conservation and monitoring mechanisms
- Promote sustainable urbanization by reviewing urban development norms and ensuring the participation of environmental specialists in the decision-making process

Sustainable Development Function

- Contribute to the development of a sustainable business environment by fostering cooperation among enterprises, promoting the implementation of corporate social responsibility (CSR) strategies, supporting green certification processes, facilitating the dissemination of green technologies, and encouraging environmentally responsible behavior within the BR
- Develop a socio-economic development strategy, taking into account the military security situation.

Logistical Support Function

- Implement a comprehensive, long-term educational program within the BR boundaries that will include children from kindergartens and schools, their parents, and teachers,
- Promote public awareness through social media, television companies, and non-formal education.

3.8 Description of how the Planned Dilijan Biosphere Reserve will Fulfil the Three Functions

The planned DBR will be designed to advance all three of the core functions of a UNESCO Biosphere Reserve: conservation, development and logistical support.

Conservation: The planned DBR protects a diverse range of ecosystems, including mixed Caucasian forests, deciduous and coniferous woodlands, alpine and subalpine meadows, freshwater habitats, cliffs, wetlands and lakes. These critical habitats support a variety of endemic, rare and threatened species, including leopards, lynxes, brown bears, Caucasian grouse, Darevskia lizards, Armenian birch mice and European otters.

Conservation strategies include: (a.) Core protected areas, such as Dilijan National Park and five state sanctuaries, ensure the long-term preservation of ecosystems; (b) Buffer zones reducing outer impacts on the key conservation areas and allowing activities that are compatible with conservation objectives; (c) Integration into broader ecological networks, such as the Emerald Network and the WWF-supported Eco-Corridor Caucasus, to promote habitat connectivity. Furthermore, it is imperative to safeguard cultural landscapes and customary land-use practices that play a pivotal role in the preservation of biodiversity.

Development: The proposed Dilijan Biosphere Reserve (DBR) identifies several key potential directions to promote socio-cultural and ecological sustainability while supporting local livelihoods and preserving ecosystem integrity:

- Sustainable agriculture and cluster-based rural development, encouraging specialization in diverse products without depleting natural resources.
- Eco-tourism and cultural tourism, leveraging historical sites such as Haghartsin, Goshavank, and Makaravank, as well as traditional crafts and local festivals, to generate income and strengthen cultural heritage.
- Inclusive community participation, ensuring that development initiatives benefit local populations and foster intercultural relations.
- Education and capacity building, cultivating environmentally aware and skilled communities to support long-term sustainable growth.
- Sustainable business development, fostering cooperation among enterprises, promoting corporate social responsibility (CSR) strategies, supporting green certification processes, and encouraging environmentally responsible practices within the reserve.

Logistic support: The planned DBR serves as a living laboratory and knowledge hub, supporting research, education, and monitoring: (a) Partnerships with the National Academy of Sciences of Armenia and other institutions facilitate scientific research on biodiversity, ecosystem services and climate adaptation; (b) Educational infrastructure includes schools, vocational colleges and international institutions such as UWC Dilijan, TUMO and the Apicius School of Hospitality, as well as community-based learning programmes; (c) The planned DBR facilitates demonstration projects, environmental education and applied conservation initiatives, linking scientific knowledge with practical implementation. Monitoring the impact of climate change, species distribution and ecosystem health provides data to inform adaptive management and long-term planning.

3.9 Zoning of the Planned Dilijan Biosphere Reserve

The planned DBR is composed of three zones: core, buffer, and transition (Figure 7).

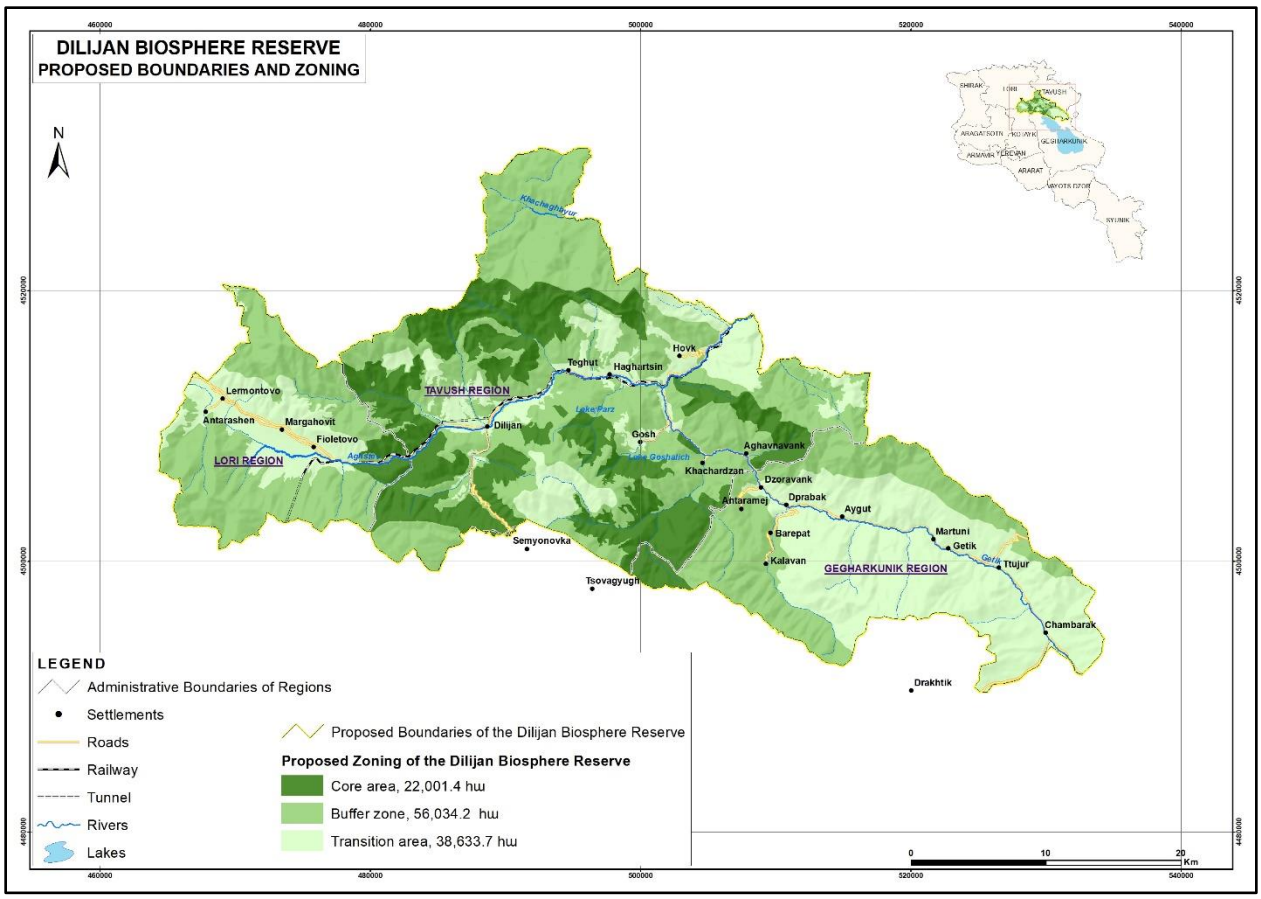


Figure 7. Zoning of the planned Dilijan Biosphere Reserve

The core area of the planned DBR is represented by the reserve and sanctuary zones of Dilijan National Park, occupying 22,001 ha. Its primary purpose is to preserve the region's most valuable and vulnerable ecosystems, serving as a living laboratory for ecological research and conservation science. The buffer zone, covering 56,034 ha, is the largest part of the biosphere reserve and surrounds the core area to shield it from external impacts. The buffer zone includes the entire economic and recreational zones of Dilijan National Park, five sanctuaries located adjacent to the national park, and partially community-owned and private lands, including four settlements: Khachardzan, Aghavnavank, Antarametch, and Kalavan. In this zone sustainable natural resource use practices will be promoted as well as scientific research and environmental monitoring will be facilitated. The transition area, spanning 38,6341 ha, includes larger municipalities with schools, kindergartens, small factories, agricultural lands etc. The biggest city of the planned DBR – Dilijan – is also part of the transition area. This area promotes sustainable economic activities and community development programmes, as well as environmental education initiatives and partnerships with academic institutions.

This three-tiered structure ensures both ecological protection and the harmonious integration of human activities, while fostering a culture of learning, innovation, and stewardship.

3.10 Scenarios for Governance of the Planned Dilijan Biosphere Reserve

Key principles for BR governance are defined by the Seville Strategy (1995) and the Statutory Framework of the World Network of Biosphere Reserves (1995), complemented by UNESCO Technical Guidelines for Biosphere Reserves (2022). These instruments require governance to deliver the three core BR functions through legally sound, participatory, and adaptive arrangements. UNESCO stresses that structures must balance national accountability with local legitimacy, institutionalize multi-stakeholder participation, and secure cross-sectoral coordination across core, buffer, and transition zones. The Lima Action Plan (2016–2025) and the MAB Strategy (2015–2025)[4] further underscore transparent decision-making, inclusive engagement, and systematic monitoring as prerequisites for effective governance.

Together, these frameworks provide the normative and operational basis for discussing and shaping an appropriate governance model for the DBR. In line with these principles, four potential governance models were developed and discussed with key stakeholders such as representatives of local communities and municipalities, ministries, and international conservation organisations such as WWF and CNF. Stakeholders expressed different preferences regarding the proposed models, reflecting their institutional mandates, expectations, and priorities. While broad agreement was reached on the key principles for an effective governance system, a final consensus on the preferred model has not yet been achieved.

During the nomination phase, this dialogue will continue in a more targeted and structured manner. Further consultations, combined with legal analysis, institutional capacity assessment, and financial planning, will enable stakeholders to converge on the governance option that is most feasible, realistic, aligned with partner strategies, and capable of delivering tangible benefits for both people and nature. The outcome of this process will be formally specified and justified in the nomination dossier.

Table 5 provides a brief comparison of the four discussed governance models, outlining their respective strengths, potential risks, and financing options.

Model 1 - Ministry-led governance with delegated management to the Dilijan National Park Administration

In this model, the Ministry of Environment (MoE) serves as the legally accountable authority for the DBR, while operational management is delegated to the Dilijan National Park Administration (DNP) through an expanded mandate or a dedicated unit. The Ministry retains strategic oversight and compliance responsibilities, whereas the DNP leads planning, monitoring, and enforcement in the core area and parts of buffer zones. Within the transition area, the DNP acts as coordinator, facilitating communication and collaboration among partners. A formal multi-stakeholder advisory council provides input on transition zone development, education, and outreach, ensuring cohesive implementation of the three core BR functions.

[4] https://unesco.org.uk/site/assets/files/2041/lima_action_plan_for_unescos_man_and_the_biosphere_programme_2016.pdf

Model 2 – Governance with Delegated Management to the Tavush Regional Administration

In this model, it is proposed to establish a new subdivision within the Tavush Regional Administration that will carry out the operational work of the DBR. This unit will be supported by a multi-stakeholder council established under the Governor, thereby ensuring a participatory approach involving both public and private sectors in the governance of the DBR.

As the representative of the Government of the Republic of Armenia in the region, the Regional Administration will not only coordinate work on the ground but will also serve as a link between the Government and local stakeholders.

Model 3 – Joint Governance by an Inter-Community Council

In this model, governance is carried out by an inter-community council. The core area and respective territories of the buffer zone are managed by the competent authorities such as Dilijan National Park and Hayantar SNCO (responsible for forest management), while specific regulations and rules for communities are defined and agreed by the council by consensus. Each community provides a qualified representative, who will represent the interests of the community and work together with other representatives toward achieving the goals and objectives of the DBR.

To ensure effective coordination, a Joint Secretariat shall be established, composed of representatives from the inter-community council, Dilijan National Park, and Hayantar SNCO. The Secretariat will convene regular meetings, facilitate joint planning sessions, and maintain records of decisions. It will serve as the central body for communication, reporting, and information exchange, ensuring that decisions for the three BR zones are harmonized, responsibilities are clearly allocated, and implementation of projects and activities is aligned with both conservation priorities and community needs.

Model 4 – Governance by a Non-Profit Legal Entity

In this model, it is proposed to establish a Foundation that would consist of a Steering Board, an Advisory Body, and an Administration. The Steering Board would consist of representatives of state and local self-government bodies, such as MoE, Dilijan National Park, municipalities, etc. while all other stakeholders would be represented in the Advisory Body. The staff of the Administration would be selected through a competitive process. Under this model, securing financing and ensuring self-financing of the structure would be considerably easier, with the founders of the entity serving as the primary funders of the core staff and operational costs.

Table 5. Comparative Overview of Governance Models

Model	Strengths	Risks	Potential Funding Sources
Ministry-led with delegated management to DNP	Clear legal authority; Alignment with protected area legislation; High conservation expertise; Reliable financing via state budget and potentially Caucasus Nature Fund	Risk of centralization; Slower cross-sector coordination unless advisory structures are empowered	State budget (MoE); DNP operational funds; Caucasus Nature Fund; International biodiversity grants; CSR partnerships; Tourism taxes/fees/permits
Governance with Delegated Management to the Tavush Regional Administration	Strong regional ownership; Potentially more efficient integration of DBR goals into regional planning processes	Difficulty in coordinating work with communities in Lori and Gogharkunik regions; Risk of fragmentation between conservation and development; Requires strong safeguards to ensure biodiversity objectives are not overshadowed by economic or infrastructure priorities; Efficiency of the work of the council under the governor	Regional Administration budget
Joint Governance by an Inter-Community Council	High level of local participation and ownership; Shared responsibility encourages cooperation across communities	Requires new legal instrument/formal recognition of the council; Need for sustained funding; Capacity gaps across communities may lead to uneven participation; Risk of inconsistent implementation without strong coordination mechanisms	Community budgets; State subsidies supporting inter-community cooperation; Donor programmes focused on community-led conservation and local governance (EU, UNDP, GEF small grants, WWF); Eco-tourism revenues and local service fees; BR certification schemes and label fees; Cooperative projects funded jointly by multiple communities
Governance by a Non-Profit Legal Entity	High flexibility and operational independence for fundraising and project implementation; Possibility to recruit specialized staff through competitive hiring; Strong potential for	Requires strong initial funding and long-term commitments from founders; Governance structure must be carefully designed to avoid dominance by one stakeholder group; Risk of mission drift if fundraising pressures become high; Need for continuous	Contributions from Foundation founders; Philanthropic donors and international foundations; Long-term program funding from CNF, GEF, KfW, EU, UNESCO-related grants; Corporate sponsorships and CSR initiatives; Visitor fees, service fees,

Model	Strengths	Risks	Potential Funding Sources
	diverse financing and long-term sustainability; Ensures inclusion of all stakeholder groups through the Steering Body and Advisory Board; More attractive structure for international donors and private sector contributors	transparency and trust-building with public bodies and communities	and revenue-generating programs

3.11 Expected Benefits of Dilijan Biosphere Reserve

The establishment of the Dilijan BR will create a wide range of ecological, socio-economic, educational, and scientific benefits at both national and local levels. As Armenia's first UNESCO-designated biosphere reserve, it will serve as a model region for harmonizing nature conservation with sustainable socio-economic development. The initiative will not only enhance environmental protection, education and scientific research but also stimulate economic growth, strengthen community resilience, and promote international cooperation. The following points summarize the key expected benefits arising from the creation of the DBR:

1. Coordination and Strengthening of Stakeholder Cooperation: The planned DBR will promote effective coordination of the regional development among local self-government bodies, protected area administrations, NGOs, private companies and communities. By fostering enhanced cooperation and joint engagement in problem-solving and decision-making, the BR will serve as a platform for aligning diverse interests and responsibilities. This collaborative framework will ensure that conservation objectives, sustainable development goals, and community needs are addressed in an integrated and participatory manner within the scope of the Dilijan BR.

2. Opportunities for International Funding: UNESCO recognition will increase the attention of international donor organizations and development agencies towards the Dilijan BR. This will provide the state, local communities, NGOs, and the private sector with new opportunities to attract additional financial and technical support for the sustainable development initiatives of the area, related to environment, climate change, community development, education, culture or socio-economy.

3. Tourism Promotion and Development: Being under the auspices of UNESCO will increase the visibility and attractiveness of the planned Dilijan BR for international tourists, increasing tourist flows and revenues. At the same time, the BR will help steer regional tourism development into the direction of sustainable and eco-friendly practices.

4. Protection of Valuable Environmental Areas: The establishment of the Dilijan BR will strengthen conservation of the area's unique biodiversity and ecosystems. This protection will extend beyond the boundaries of the existing protected areas, through the creation of buffer zones, enhanced ecological connectivity, and the application of best practices and standards. The BR will further promote the sustainable management of forests and the preservation of valuable ecosystems, including those located outside PAs.

5. Sustainable Economic Development: The planned DBR will serve as a catalyst for sustainable economic development, primarily through the UNESCO BR branding mechanism. This international designation is expected to significantly enhance the visibility and marketability of local products, allowing them to gain recognition for their unique quality and ecological integrity and facilitating access to new, high-value markets.

Beyond branding, the DBR will generate direct economic benefits through the creation of specialized jobs, such as local nature guides, and by supporting employment through increased tourism.

6. Education, Awareness, and Scientific Research: The planned Dilijan BR will function as a comprehensive platform for education, awareness-raising, and scientific research. It will promote

environmental education programmes that actively engage children, parents, teachers, and local communities, fostering a deeper understanding of the interdependence between people and nature. At the same time, the BR will serve as a dynamic site for scientific research and long-term monitoring, supporting studies in biodiversity, climate, forest ecosystems, agriculture, cultural landscapes, and socio-economic development. By encompassing a gradient of human intervention - from strictly protected core areas to sustainably managed buffer zones and transition areas - the BR will provide a unique setting for testing approaches to conservation and sustainable use. This integrated framework will enable the collection, analysis, and dissemination of knowledge that supports both ecological integrity and human well-being, positioning the Dilijan BR as a model learning site for adaptive management, sustainable livelihoods, and human–environment coexistence.

7. Project Synergy: The planned Dilijan BR will contribute to fostering synergy among programmes implemented by international, national, community, private, and local actors, ensuring the efficient use of resources and a coordinated approach towards achieving the Sustainable Development Goals. It will also lay the foundations for establishing collaborations with other Biosphere Reserves around the world.

8. Achieving International Commitments of Armenia: The establishment of the Dilijan BR will directly contribute to the achievement of Armenia's international environmental commitments, including the targets of the Kunming–Montreal Global Biodiversity Framework (KMGBF) and other multilateral agreements. By expanding ecological connectivity, safeguarding biodiversity, promoting sustainable land use, and integrating local communities into conservation and development processes, the BR will serve as a practical instrument for translating global goals into local action. Its zonation system and participatory governance model will enable measurable progress towards KMGBF targets such as increasing the coverage of effectively managed protected and conserved areas, restoring degraded ecosystems, and ensuring the fair and equitable sharing of benefits derived from biodiversity. In this way, the Dilijan BR will strengthen Armenia's role in the global efforts to halt biodiversity loss, mitigate climate change, and promote sustainable development.

9. Potential Increase in Public Investments from the Government of Armenia: Designation of the Dilijan BR may encourage the Government of Armenia to increase public investments aimed at addressing local challenges such as poverty reduction, employment generation, internal migration and emigration flows, and improvements in public infrastructure. While not automatic, such investments would align with the vision of the DBR by supporting a higher standard of living for the local population and reinforcing the BR's role as a model for sustainable regional development.

4. Roadmap for the Establishment of Dilijan Biosphere Reserve

This roadmap presents both the activities already implemented up to November 2025 and the planned actions for the subsequent nomination and establishment phases of the planned DBR. It outlines the sequential phases, timelines, key activities, expected outputs, and responsible institutions in alignment with the UNESCO MAB Programme requirements.

Box 1. Considerations for Roadmap Implementation

The roadmap is notably ambitious and reflects the current aspiration of the Government of Armenia to submit the nomination document to the UNESCO MAB Secretariat by September 2026. Achieving this target will require substantial effort from a wide range of governmental agencies, ministries, experts and stakeholders. Consensus must be reached on critical components such as the governance structure, financing mechanism for the biosphere reserve, zoning and boundary delineation, and the development of a management plan concept. These tasks demand significant coordination and collaboration across institutions. While theoretically feasible, the successful realization of this roadmap is contingent upon strong synergies and concerted joint action among all stakeholders involved. It is furthermore subject to the availability of funding for implementing the necessary activities.

Table 6. Roadmap for the Development of the Dilijan Biosphere Reserve

Phase	Timeframe	Activity	Output / Expected Output	Status	Responsible
Phase 1: Potential analysis selection of the site	2019-2022	Potential analysis in 8 regions of RA	Evaluation report	Completed	MSF
		Decision with the Ministry of Environment of RA regarding the development of DBR	Decision to establish the DBR	Completed	MoE
Phase 2: Initial scoping of the DBR and capacity building	2024	Baseline Study: assessment of flora	Assessment report	Completed	SOL, MSF
	2024	Baseline Study: assessment of fauna	Assessment report	Completed	SOL, MSF
	2025	Baseline Study: socio-economic assessment	Assessment report	Completed	SOL, MSF
	2024	Baseline Study: legal assessment	Assessment report	Completed	SOL, MSF
	2024-2025	Stakeholder consultations on local level		In progress	ALL

	2024	● Inception workshop on local level to present the concept and establish a working group	Local working group, consisting of appr. 30 persons created	Completed	ALL
	2024	● 1st working group meeting to define DBR planning area	Planning area agreed	Completed	ALL
	2024	● 2nd working group meeting to define key values and vision of DBR	Map of values of and vision of the DBR developed	Completed	ALL
	2025	● 3rd working group meeting to discuss and agree zoning of the DBR	Zoning map agreed	Completed	ALL
	2024-2025	Stakeholder consultations on national level		In progress	ALL
	2024	▪ National kick-off workshop held together with MoE	Introduce concept and planned activities	Completed	ALL
	2024	▪ 1st Intergovernmental Steering Committee (ISC) meeting to discuss the legal framework	Agreement on future meetings and exchange	Completed	MoE, SOL
	July 2025	▪ 2nd Intergovernmental Steering Committee meeting to discuss and agree zoning of the DBR	Agreed zoning map of DBR	Completed	MoE, SOL
	October 2025	▪ 3rd Intergovernmental Steering Committee meeting to discuss governance mechanisms of the DBR	Agreed governance mechanisms of DBR	Completed	MoE, SOL
	October 2025	▪ Final workshop to present the results and agree on way forward	Agreement on next phases for DBR development	Planned	ALL
	2024	Trainings in UNESCO MAB Concept	Autumn School for participants from Yerevan and Dilijan	Completed	SOL, MSF
	2025	Study Tour to 2 German BRs	Study Tour of Armenian delegation	Completed	MSF

	2025	Elaboration of implementation plan specifying needed steps for the nomination and establishment of DBR	Implementation plan approved by partners and stakeholders (especially by ISC)	Planned	MSF, SOL, for the elaboration MoE for the approval
	2025	Preparation of the project proposal for the next phase and submission to the donor	Project proposal - accompanied by the support letter from MoE	Completed	MSF, SOL, MoE
	2026	**Approval of the next project phase**		**Planned**	**BMUKN/UBA/ BfN**
Phase 3: Planning and nomination of the DBR	2026	Kick-off Workshop for the nomination phase and agreement with partners on the collaboration and next steps	▪ MoM		MSF, SOL, MoE
	2026-2027	▪ Reactivation of the MAB National Committee ▪ Continuing cooperation and coordination with the Local Working Group (LWG) to advance the DBR nomination process	▪ MAB National Committee meeting ▪ Regular meetings with the LWG		CENS, SOL, MoE
	2026-2027	▪ Continued coordination of the Intergovernmental Steering Committee (ISC) to guide the next phase of DBR nomination and development, take key decisions and endorse core documents (governance structure, management concept and nomination document) ▪ Design of a financing mechanisms and resource mobilization strategy for the BR	▪ Regular meetings of the ISC organized by MoE ▪ Decisions related to governance structure and its legal status ▪ Endorsement of nomination document, management concept		MoE, ISC, MSF, SOL
	2026-2027	Development of a participatory Management Plan for the DBR through a consultation process and participation of partners and stakeholders	DBR Management Plan – outlining following: ▪ 'Dilijan BR' and its zones ▪ Vision and objectives (related to Conservation, Development and Logistic functions of the BR)		MSF, SOL with support of partners

			▪ Management responses ▪ Monitoring and evaluation ▪ Organizational structure and institutional arrangements		
	2026	▪ Zoning and boundaries (Finalization of zoning, detail mapping of core, buffer, and transition zones considering land ownership and actual land use) ▪ Assessment of existing and historical land uses, main users, tenure, rules (including customary or traditional), access to land (including women)	▪ Maps ▪ Rationale for zoning ▪ Description of land uses and regulations		SOL, MSF
	2026-2027	Preparation of necessary statutory instruments	▪ E.g. draft laws, sub-laws, technical regulations, decrees, ordinances, orders, legal amendments, necessary for establishing and functioning of the DBR		MoE, experts
	2026	Elaboration of DBR nomination document for UNESCO through: ▪ Collaboration with partners and stakeholders ▪ Consultations on local and national level ▪ Expert input ▪ Translation of the document into Armenian language	Draft Nomination document in English and Armenian languages		MoE, SOL, MSF
		Circulation of the nomination document to different institutions for approval	**Approved nomination document**		MoE, ISC, Municipalities, other ministries

		Validation of the nomination by national MAB committee (if applicable)	**Endorsement by MAB committee**		CENS
	2027-2028	▪ Biosphere Reserve Management Body (BRMB) legal formation documents (draft) ▪ Selection of candidates for staffing and their training ▪ Identification of location for BRMB office	▪ Draft charter/statute for BRMB; list of founders; organizational structure; functions, roles and responsibilities of the BRMB; staff job descriptions ▪ Office space allocated for BRMB		MoE, MSF, SOL
	2027	Strengthen partnership with the Thuringian Forest BR	▪ Joint projects or activities, exchange meetings or visits		MSF, SOL
	2027 July - December	Organization of the Strategic Environmental Assessment (SEA) of the Management Plan of DBR	▪ SEA Report		MoE
	09.2026	**Submission of the BR nomination document to UNESCO MAB Programme**	**Official submission letter**		MoE, MFA
Phase 4: Evaluation	2026-2027	Review by UNESCO MAB	Evaluation feedback		MAB
	2026-2027 2027	Response to technical queries	Clarification documents submitted		MoE
	2026-2027 2027	Refinement of the nomination document and re-submission	Updated nomination document		MoE
Phase 5: Designation	2027	Official decision by International Coordinating Council of the Man and the Biosphere Programme (MAB ICC)	Designation of the DBR		MAB ICC

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