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ARMENIA

RECOMMENDATIONS FOR ECOTOURISM DEVELOPMENT PLANNING IN THE VANADZOR COMMUNITY



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Recommendations for Ecotourism Development Planning in the Vanadzor Community, Armenia

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Acronyms

AMD	Armenian Dram
CBD	Convention on Biological Diversity
EU4Environment	European Union Programme for Environment
GIS	Geographical Information Systems
NGO	Non-governmental Organization
NTFPs	Non-Timber Forest Products
PA	Protected Area
PPP	Public-Private Partnership
UNESCO	United Nations Educational, Scientific and Cultural Organization
ToR	Terms of Reference

1. Introduction

This Ecotourism Management Plan provides a structured framework for assessing and guiding ecotourism development at the community level. It is based on a standardized ecotourism assessment tool that evaluates ecological conditions, socio-economic context, tourism assets, and associated environmental and operational risks. The plan is developed as part of a broader effort under the EU4Environment programme, implemented with methodological alignment to World Bank approaches and within the framework of the OIKO initiative. The overall activity focuses on supporting selected communities in identifying realistic and environmentally responsible ecotourism opportunities, while ensuring that development remains compatible with local ecological and socio-economic conditions.

Within this context, the project includes the application of a unified assessment tool across target communities, stakeholder consultations to capture local perspectives and priorities, and the preparation of site-specific management plans. These plans are intended to translate assessment results into practical guidance, including zoning considerations, identification of suitable ecotourism products, infrastructure needs, governance arrangements, and basic management measures.

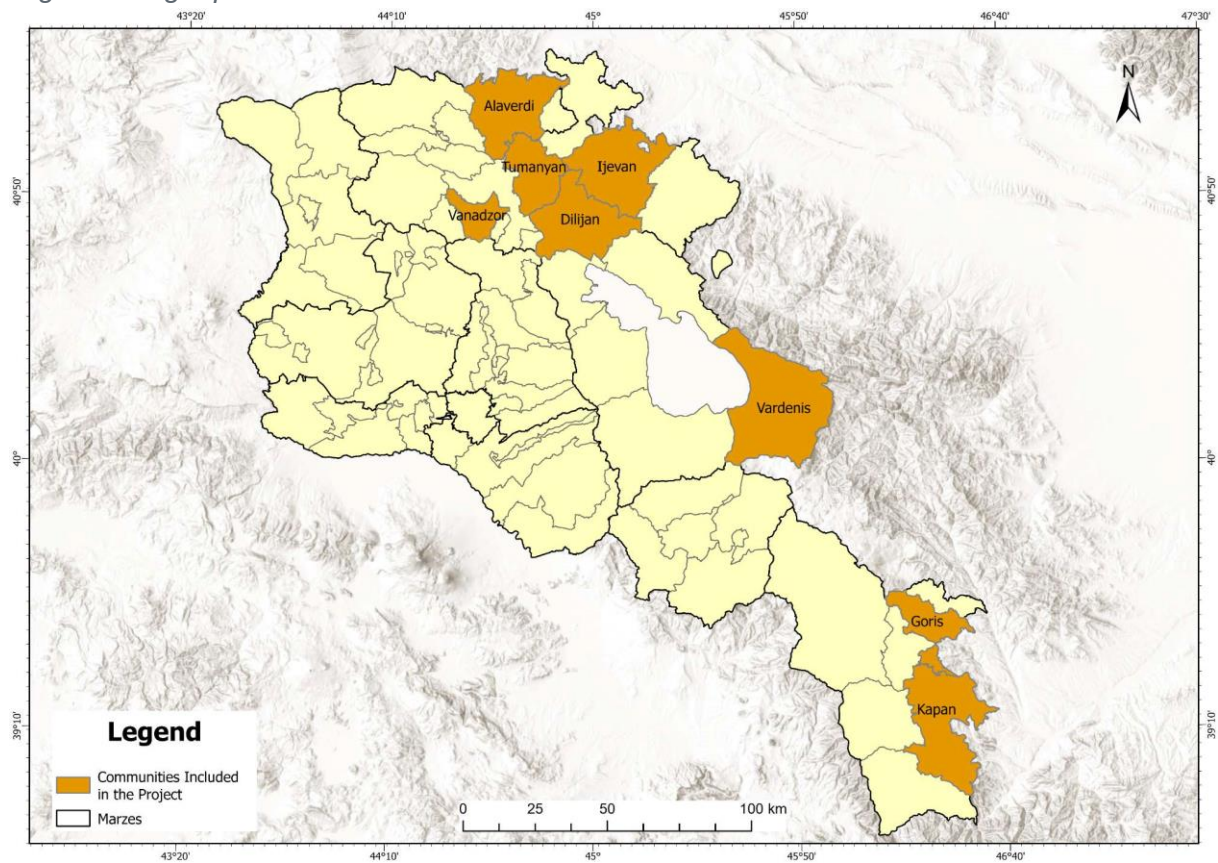
The purpose of this plan is to support decision-making on whether and how ecotourism can be developed in a controlled and sustainable manner. It ensures that tourism activities are aligned with conservation requirements, particularly in areas with sensitive ecosystems or species of concern, while also identifying opportunities for local economic engagement. The approach follows sustainable development principles by promoting low-impact tourism, supporting local livelihoods, and encouraging the use of natural and cultural assets without compromising their integrity. It also aims to strengthen coordination between local authorities, communities, and other stakeholders involved in tourism and environmental management

The map illustrates the spatial distribution of the eight communities included in the project in Armenia: Alaverdi, Tumanyan, Vanadzor, Dilijan, Ijevan, Vardenis, Goris, and Kapan. Together, these locations create a broad territorial coverage across the northern, eastern, and southern parts of the country and reflect different ecological, landscape, and accessibility conditions relevant to ecotourism planning. The map helps situate the project within the national context and illustrates that the selected communities represent different types of mountain, forest, and protected area settings where ecotourism opportunities and management needs may vary.

The present document was developed with financial support from the European Union under the European Union for Environment (EU4Environment) program.¹

¹ Since 2018, the “European Union for Environment” (EU4Environment) Action has helped the Eastern Partnership countries preserve their natural capital and enhance people’s environmental well-being, by supporting environment-related action, demonstrating and unlocking opportunities for greener growth, and establishing mechanisms to better manage environmental risks and impacts. The program was funded by the European Union and principally implemented over 2019–24 by the Organisation for Economic Co-operation and Development (OECD), the United Nations Economic Commission for Europe (UNECE), the United Nations Environment Programme (UNEP), the United Nations Industrial Development Organization (UNIDO), and the World Bank. Over 2025–26, the World Bank will finalize the implementation of the program’s Result 4 area.

Figure 1. Eight pilot communities



Source: REC Caucasus.

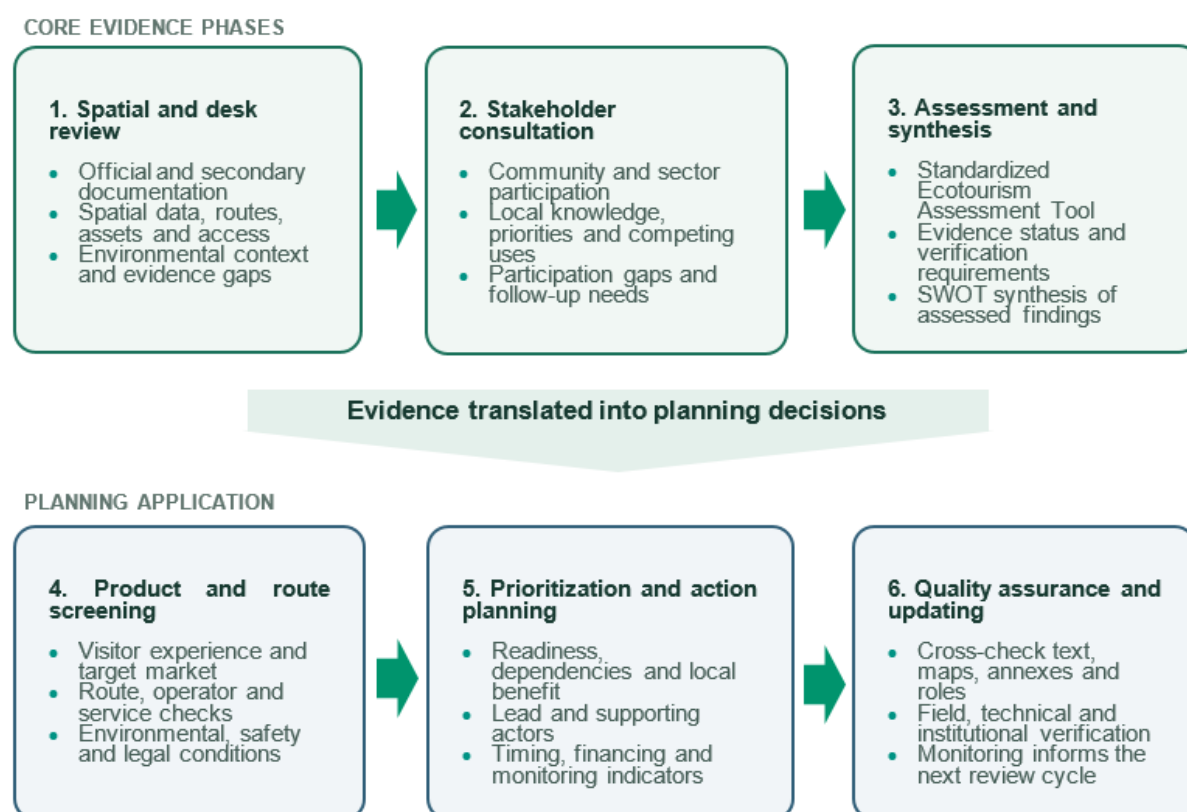
2. Methodological Approach

The Ecotourism Management Plan was developed through three complementary methodological phases: (i) spatial analysis and desk-based review; (ii) stakeholder consultation and participatory validation; and (iii) development and application of the Ecotourism Assessment Tool, followed by synthesis through SWOT analysis. Thus, these phases provide the evidence base for the Plan while distinguishing between information supported by available documentation and stakeholder inputs and aspects that still require field, technical or institutional verification.

The three phases form a connected and iterative process and thus possess an application logic and repeatability. Desk and spatial analysis establish the initial evidence base and identify gaps; consultation tests, corrects and supplements that evidence; and the Assessment Tool organizes the combined findings into a consistent community assessment. SWOT analysis then summarizes the assessed situation, while management recommendations translate the findings into actions, conditions and responsibilities. The same sequence should be followed when a Plan is prepared, reviewed or updated so that new evidence can be incorporated without changing the common analytical structure.

Additionally, these three phases are complemented with a follow up phases related to the planning application: (iv) product and route development, (v) prioritization and action planning and (vi) quality assurance and updating. The methodology sequence and its application to plan preparation, review and updating are summarized in Figure below.

Figure 2. Ecotourism development planning methodology



Source: Authors' elaboration.

Phase 1 – Spatial analysis and desk-based review

The first phase consisted of the review and consolidation of available project documentation, official and secondary sources, existing tourism and territorial information, and project-supplied GIS and spatial data. The spatial analysis was used to examine the community context, natural and cultural assets, settlement and accessibility patterns, protected area and Emerald Network context, and the spatial relationship between potential tourism areas and environmentally sensitive features. The analysis provided the initial basis for screening ecotourism opportunities and constraints and for identifying information gaps requiring subsequent verification. Importantly, the GIS layers and maps used in the Plan provide a planning and screening context; they do not in themselves confirm land tenure, legal access, ecological condition, route readiness or the suitability of individual sites for tourism development. This distinction is already reflected elsewhere in the Plan, including the requirement to confirm candidate Emerald boundaries and route relationships before zoning or promotion.

Evidence classification and treatment:

Information used in the assessment is classified according to its source and level of confirmation. The principal categories are: information confirmed through official documentation; information supported by project or technical sources; stakeholder-reported information; findings derived from spatial analysis; experience transferred from another community; planning proposals; and matters requiring field, legal, ecological, commercial or institutional verification. A statement is not treated as confirmed merely because it appears in more than one secondary source. Where sources agree, the finding may be used with greater confidence; where they differ, the inconsistency is retained as an evidence gap and addressed through a verification requirement rather than resolved by assumption.

Minimum spatial review and data handling:

For each community, the spatial review should consider community and settlement boundaries; forests; protected areas and candidate Emerald Network areas; recorded tourism routes; natural and cultural attractions; roads and transport access; settlements and service locations; environmentally sensitive features; known hazards; and links with neighbouring communities. Route records from official and user-generated spatial data should be screened for duplicate or alternative alignments and, where possible, checked for start and end points, distance, elevation, surface condition, land and management status, seasonal accessibility and connection to visitor services. Every map should identify its purpose, source and limitations. Spatial proximity does not by itself establish legal access, ownership, environmental suitability, visitor readiness or management responsibility.

Phase 2 – Stakeholder consultation and participatory validation

Stakeholder engagement was undertaken through two principal consultation and capacity-building stages. The first took place in March 2026, when representatives of the target communities participated in introductory stakeholder engagement activities. This phase introduced the project and ecotourism planning approach, applied a structured 28-question consultation instrument, and used participatory discussion and group work to identify local opportunities, constraints, existing initiatives and priorities. The second stage took place in July 2026 and shifted from initial identification of issues towards capacity building, review and validation of the emerging EMP proposals. The July process enabled stakeholders to review proposed measures, question assumptions and discuss implementation requirements, including responsibilities, financing, maintenance, visitor management and monitoring.

The stakeholder evidence and its documentation status are summarized in Annex 2 – Stakeholders and Consultation Status, which also distinguishes confirmed community-level participation from stakeholder roles and responsibilities that still require actor-specific confirmation.

Minimum stakeholder-engagement standard:

Application or updating of the template should seek input, as relevant to the community context, from the community administration; forest and protected-area managers; tourism businesses, guides and transport providers; accommodation and food providers; cultural and heritage managers; local producers and community groups; environmental organizations; technical specialists; and groups whose views may otherwise be underrepresented. The purpose is not only to collect proposals, but also to identify existing practices, competing resource uses, management constraints, business capacity, maintenance needs, environmental concerns and the actors able to implement or verify proposed measures. Participation should be recorded by date, format, represented institution or stakeholder category and the subject of the input provided.

Consultation evidence, participation gaps and differing views:

Community-level participation is distinguished from confirmation by a particular institution, business or responsible authority. If a relevant actor did not participate, or if the available participant record does not establish the actor's identity, the gap is retained and a follow-up requirement is assigned. Stakeholder views are treated as local knowledge and planning input, not as substitutes for legal, technical or environmental approval. Where participants express different priorities or interpretations, the Plan should record the issue and identify the decision-maker or verification process needed to resolve it.

Phase 3 – Assessment and Synthesis

A standardized Ecotourism Assessment Tool was developed and applied to structure the assessment of each pilot community. The tool covers screening and eligibility; ecological and conservation characteristics; socio-economic and community context; tourism assets and baseline use; suitability and zoning; potential ecotourism products; infrastructure and services; governance; visitor management; benefit sharing; environmental and social safeguards; climate resilience; monitoring; investment and implementation considerations. The completed community assessment is provided in Annex 1 – Ecotourism Assessment Tool and forms the analytical basis for the management recommendations presented throughout the Plan. The findings were subsequently consolidated through a SWOT analysis, presented in Annex 3, which distinguishes verified or desk-supported strengths and weaknesses from indicative opportunities and potential risks/threats. The SWOT therefore serves as a synthesis of the preceding assessment rather than as a separate feasibility study.

The Tool is applied as an evidence and decision record. For each relevant topic, the assessment should identify the available evidence, current condition, evidence status, principal gap, proposed management response, further verification needed and the institution or actor expected to confirm or implement the response. Conclusions should be traceable to the corresponding assessment fields, consultation evidence or spatial finding. A numerical score should be used only where an agreed scoring method, evidence basis and interpretation have been applied consistently; otherwise, findings should remain qualitative and conditional.

The attractions needs to meet specific requirement in order to become an ecotourism product. The identification of an attraction does not by itself establish an ecotourism product. A proposed product

should have a sufficiently defined visitor experience; a usable and legally accessible route or site; an identifiable visitor segment; a capable operator or service provider; available or realistically achievable guiding, transport, food, accommodation or information services; acceptable environmental and social conditions; defined safety and maintenance responsibilities; and a reasonable mechanism for local economic benefit. Product proposals that do not yet meet these conditions should be presented as conditional opportunities, together with the checks, partnerships and service-development actions required before launch or promotion.

Phase 4 - Product route and screening

Where a route, attraction cluster or visitor itinerary extends beyond one community, it should be assessed as a shared product rather than assigned entirely to the community in which the analysis began. The Plan should identify the participating communities and site managers, route and visitor handovers, operator roles, maintenance responsibilities, information and booking arrangements, emergency coordination and the intended distribution of accommodation, meals, guiding, transport and product sales. Cross-community proposals remain indicative until these responsibilities and benefit-sharing arrangements are agreed.

Phase 5 - Prioritization and action planning

Recommendations are prioritized according to their evidence base, implementation readiness, environmental and social conditions, institutional ownership, dependency on other actions and likely contribution to visitor experience and local benefit. Actions may be grouped as immediate organizational or low-cost measures; measures requiring field or technical verification; pilot products suitable for testing; infrastructure requiring feasibility, design and environmental assessment; and longer-term measures dependent on financing, permits or institutional agreements. Each priority action should identify an indicative lead, supporting actors, sequence, timeframe, verification requirement and monitoring indicator. The absence of a confirmed owner or maintenance arrangement is treated as an implementation gap rather than left implicit.

Phase 6 - Quality assurance and updating

Before completion, the Plan should be checked for consistency between the main text, assessment annexes, stakeholder record, maps, SWOT analysis, product proposals, action plan and monitoring framework. Names, boundaries, route references, responsibilities and evidence status should be used consistently throughout. The Plan should be updated when field verification changes route information, protected-area or Emerald data are revised, responsible actors are confirmed, visitor and provider data become available, infrastructure is implemented, or monitoring identifies environmental, safety, service or management issues. Updates should record the source, date and consequence of the new information.

Methodological Limitations

Methodological scope and limitations:

The preparation of this Plan did not include a feasibility study, detailed technical design or systematic field/site verification of the proposed routes, tourism sites or investments. Consequently, identification of a potential route, attraction, tourism product, visitor facility or investment in the Plan should not be interpreted as confirmation of its technical feasibility, environmental compatibility, legal availability,

safety, commercial viability or implementation readiness. The assessment deliberately identifies these evidence gaps and converts them into requirements for subsequent implementation. The Plan itself already reflects this principle by requiring route/GIS validation, specialist ecological screening and route-specific technical design before particular investments proceed.

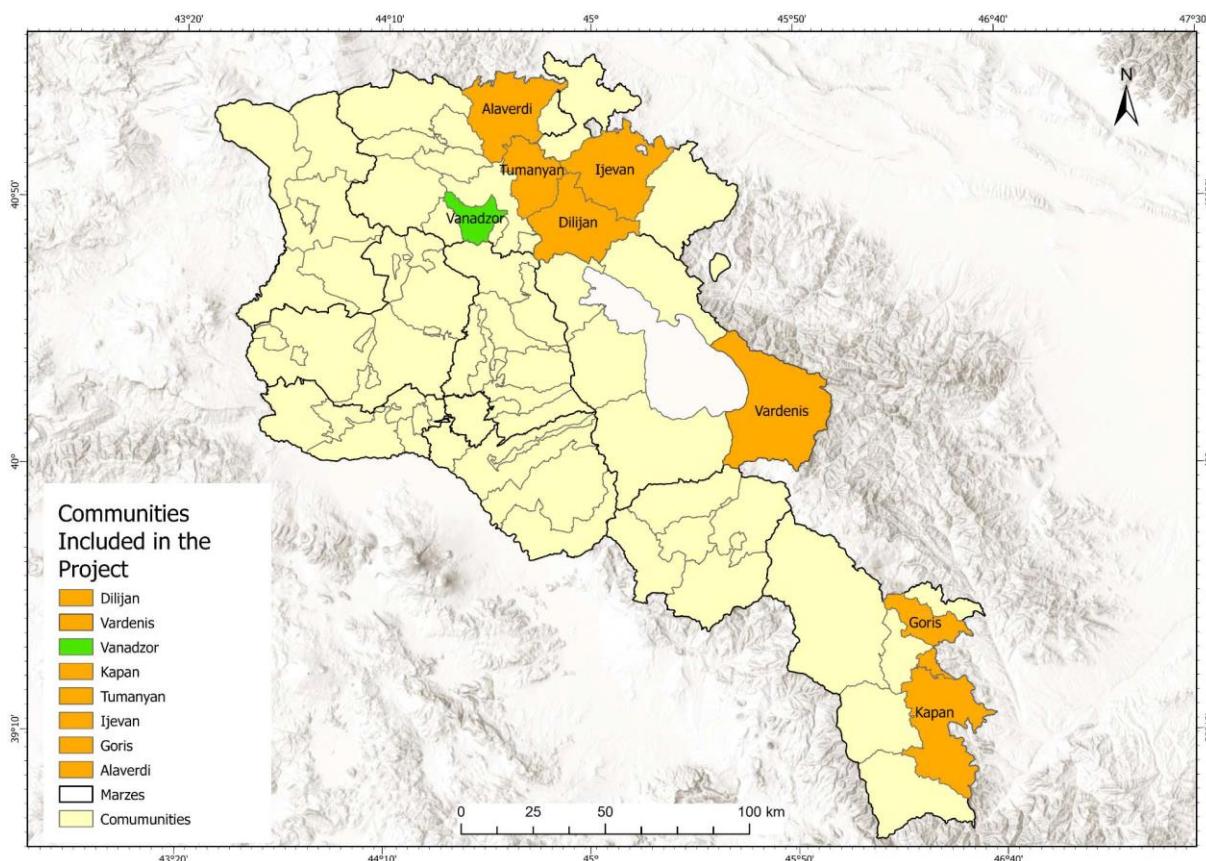
Additional evidence limitations:

Community-level tourism statistics, visitor profiles, household information and provider records may be incomplete or unavailable, and consultation participation may differ between communities and stakeholder groups. Consultation findings are therefore not treated as statistically representative survey results unless a representative sampling method is applied. Spatial data may vary in date, scale, accuracy and completeness, while route and site conditions may change seasonally or after the assessment period. These limitations should be stated wherever they materially affect a conclusion, target, product proposal or investment recommendation.

3. Site Profile

The community of Vanadzor is located in Lori marz in northern Armenia and represents one of the project's northern pilot communities. Its geographic position in a broader valley setting gives it a more urban and connected territorial profile within the overall group of project communities.

Figure 3. Vanadzor and other communities included in the project



Source: REC Caucasus.

3.1 Location and Context

Vanadzor is located in Lori marz in northern Armenia and serves as the marz center, which gives it a different planning role from the more rural pilot communities. It is not only a tourism site, but also an urban service hub with a wider municipal territory that includes surrounding settlements and natural areas used for recreation and outdoor activity. As of 1 January 2025, Vanadzor community had a permanent population of 87.7 thousand, of which 78.1 thousand were urban and 9.6 thousand rural. This confirms that the site should be understood as a city-based ecotourism location with a broader community hinterland rather than as a small nature destination detached from an urban center.

Its location gives the site a specific planning profile. Vanadzor is more accessible than several of the other pilot communities and benefits from its position within the wider Lori transport system. In the broader project context, the upgraded M6 corridor linking Vanadzor with the Armenia–Georgia border is especially relevant because it improves access to northern Lori landscapes and reinforces the city's role as a gateway to surrounding forested and mountain areas. This means that Vanadzor is not a site

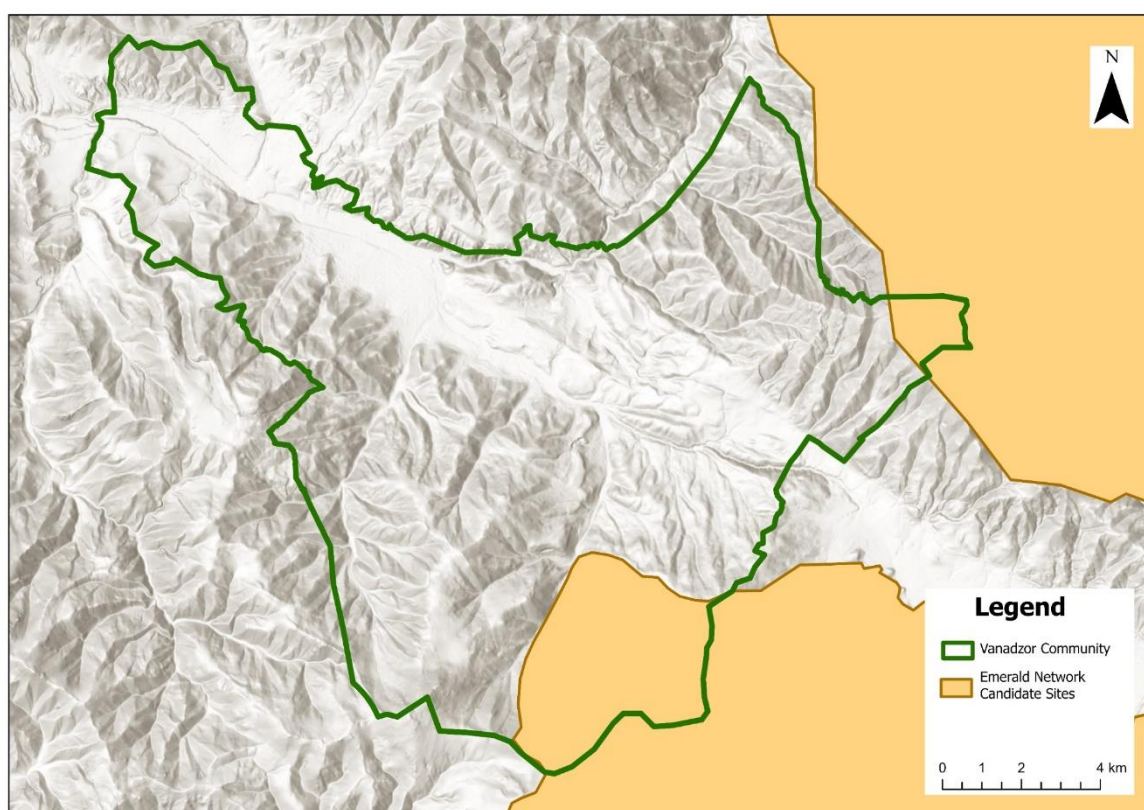
where ecotourism must overcome remoteness; the challenge is instead to shape nature-based tourism around an already accessible urban center and its surrounding natural interface.

3.2 Ecological Characteristics

The ecological profile of Vanadzor is defined by a mixed urban-natural landscape. The site assessment identifies forest and mixed ecosystems, with forest patches and mountain slopes forming the main habitat structure. This is important because Vanadzor does not function as a protected forest destination in the way Dilijan does, but it still derives much of its ecotourism value from its surrounding wooded and sloped landscape. In practical terms, the site's ecological character is based on the transition between city and nature rather than on a single protected ecosystem block.

Vanadzor's ecological identity is an urban-natural system: surrounding wooded slopes and forest patches, the Vanadzor Botanical Garden and other green spaces connect city life with nature. 'Moderate sensitivity' is an interim management category, not a finding that biodiversity is limited or unimportant. The project materials do not provide a route-level habitat or species inventory. Botanical Garden and route products therefore require a science-reviewed flora/fauna baseline, mapped sensitive features, defined visitor paths and condition monitoring before wildlife claims or promotion are approved.

Figure 4. Vanadzor Community and Emerald Network candidate-site context



Note: This map provides broad context only. It does not show approved tourism routes, the Botanical Garden, forest-management boundaries, sensitive habitats, hazards, legal roads or service locations. These layers require joint GIS and field validation.

Source: Project GIS layers, 2026.

3.3 Socio-Economic Context

The socio-economic profile of Vanadzor is considerably stronger and more diversified than that of the smaller pilot communities. Its population base of 87.7 thousand and its role as the marz center give it a larger service, labour, and institutional base than the more rural sites. At the same time, the site assessment correctly reflects that livelihoods are mixed and include agriculture, forestry, tourism, services, and industry. This combination matters for ecotourism because it means that tourism can build on an existing urban economy and service structure rather than depending entirely on small-scale rural households.

The wider Lori economy supports this interpretation. In 2024, Lori accounted for 8.8% of Armenia's agricultural output, 4.9% of industrial output, and 1.1% of services. The value of accommodation and food service activities in Lori reached 3.74 billion AMD, while average monthly nominal wages in the marz reached 163,321 AMD. These figures show that Vanadzor sits within a region where both industry and agriculture remain strong, but where tourism and hospitality are also active enough to support ecotourism-related service growth. In practical terms, this makes Vanadzor better suited to gradual diversification of tourism functions than communities where the local service base is very weak. Vanadzor also has a stronger cultural and event-based identity than several of the other sites. The filled form highlights urban culture and events as core cultural assets, with institutions such as the Hovhannes Abelyan Drama Theatre and Fine Arts Museum, and with festivals, music events, and local product fairs contributing to the city's visitor appeal. This is important for ecotourism planning because it means that Vanadzor's tourism economy is not limited to nature alone. The city can combine outdoor recreation in surrounding green areas with cultural life, small product sales, and local event-based visitation, making its socio-economic base for ecotourism broader than a purely landscape-driven model.

4. Stakeholder Insights and Local Priorities

For Vanadzor, the stakeholder discussions are most relevant where they reinforce the city's role as an urban-based ecotourism and active-recreation destination rather than a classic protected-area site. The main message that emerges is that Vanadzor should not try to position itself through wilderness tourism alone. Its stronger opportunity lies in combining nearby natural areas, hiking and biking, local cultural life, and city-based services into a more structured ecotourism offer. This fits the actual profile of the site: medium ecological sensitivity, easy access, moderate tourism demand, and a clear urban-cultural identity alongside surrounding forests and slopes.

One of the clearest opportunities raised during the stakeholder process is the active-recreation model already represented in Vanadzor by Boo Mountain Bike Park. This initiative is particularly relevant because it shows that Vanadzor already has a functioning example of eco-oriented outdoor recreation linked to mountain landscapes, social interaction, and low-impact visitor use. The park combines biking trails, a café, camping space, and a pump track, which makes it more than a single sports facility. It demonstrates that Vanadzor can build ecotourism not only around passive nature appreciation, but also around structured outdoor activity and community-based recreation. For Vanadzor, this is a major strength because biking and hiking are already part of the existing tourism baseline.

The available meeting record confirms Vanadzor Municipality and Lori DMO participation but does not demonstrate direct consultation with the competent Vanadzor Forest Economy/forest-management unit. This is a documented gap. Formal forest-unit engagement is required before any hiking, biking, transfer, trailhead or visitor facility is approved on or near forest-managed land.

A second important opportunity is the presence of a Destination Management Organization operating in Vanadzor. The stakeholder process highlighted that the DMO is already involved in regional tourism development, facilitation between municipalities and local actors, support to hiking tourism, and promotion of environmentally responsible tourism practices. This is highly relevant because Vanadzor is one of the few pilot communities where an institutional platform for coordinated tourism promotion and cooperation already exists. The DMO's work on connecting Vanadzor with Dilijan and on positioning the city as a place where visitors can extend their stay is especially important for the ecotourism package. It means that Vanadzor's tourism development does not need to start from zero in institutional terms; it can build on a structure that already works on regional tourism linkages.

Forest cooperation should use the seasonal compatibility register: the forest unit confirms land status, legal roads/trails, forestry-work and haulage conflicts, road condition, fire/closure notices and habitat rules; the Municipality and Lori DMO maintain the public route/product register; operators update bookings, brief visitors, use alternatives and report incidents. Consultation is therefore linked to a specific operating decision, not treated as a general meeting.

Stakeholder inputs also point to the value of seasonal products and urban-linked community experiences. In Vanadzor, this is particularly useful because the city already hosts music events, cultural gatherings, and product fairs, while the surrounding natural areas support outdoor activity. This creates the possibility of combining seasonal hiking or biking offers with festivals, local product events, and food-based experiences. Such a model is more realistic for Vanadzor than trying to separate nature tourism from urban culture. The site's comparative advantage lies precisely in this combination.

Inclusion was also identified as an important opportunity. Participants emphasized the role of women, youth, and vulnerable groups in guiding, local food production, hospitality, handicrafts, and

tourism-related services. This is particularly relevant for Vanadzor because the site has a stronger urban and service base than several of the other pilot communities. In practical terms, this means that the ecotourism value chain can be broadened more easily here through small businesses, community-based events, active-recreation services, and city-based support functions. At the same time, the stakeholder process also confirms several important challenges. The first is the weak state of basic ecotourism infrastructure. Even though Vanadzor is accessible and already has outdoor activity potential, the package identifies the absence of signage, no visitor center, and no formal accommodation in the ecotourism structure. This means that the city has tourism potential, but the supporting system around routes and natural areas remains incomplete. In Vanadzor, the problem is not lack of activity, but lack of structure around the activity that already exists. A second challenge is that governance and benefit-sharing remain underdeveloped despite the presence of active stakeholders. The municipality, private sector, and NGOs are present, but there is still no co-management arrangement, no revenue-sharing mechanism, and no public-private partnership structure. This is important because Vanadzor is exactly the kind of site where stronger coordination could create real progress. Without it, tourism may continue to function in fragments: city events, outdoor use, and nature-based attractions exist, but not yet as one coherent ecotourism system.

The stakeholder discussions also point indirectly to a third challenge: the need to distinguish Vanadzor's ecotourism identity more clearly. Because the city has an urban profile and a cultural life, it can easily remain a general city-and-recreation destination rather than a well-defined ecotourism site. The practical implication is that hiking, biking, green practices, and nearby nature experiences need to be framed more intentionally as part of an ecotourism offer, not left as separate or informal activities. The local priorities that emerge from these discussions are therefore quite clear. Vanadzor needs better route and visitor infrastructure, stronger connection between active recreation and city-based services, better use of its DMO and local institutional base, and more deliberate integration of women, youth, and local products into tourism activity. Its opportunity lies in becoming a coordinated urban-nature ecotourism hub with strong active-recreation features. Its challenge lies in moving from scattered assets and initiatives toward a more coherent system that connects the city, its surrounding landscapes, and its tourism actors in a structured way.

5. Tourism Baseline

5.1 Attractions

Vanadzor's priority attraction system comprises the Vanadzor Botanical Garden as the principal accessible urban-nature anchor; Boo Mountain Bike Park and related forest/slope recreation; verified hiking and viewpoint candidates around the urban-natural edge; cultural anchors such as the Hovhannes Abelyan State Drama Theatre and Vanadzor Museum of Fine Arts; city events and local-product fairs; and surrounding forest, heritage and landscape points shown only by category on the project map. Exact point names, status, access and visitor readiness must be confirmed rather than inferred from map symbols.

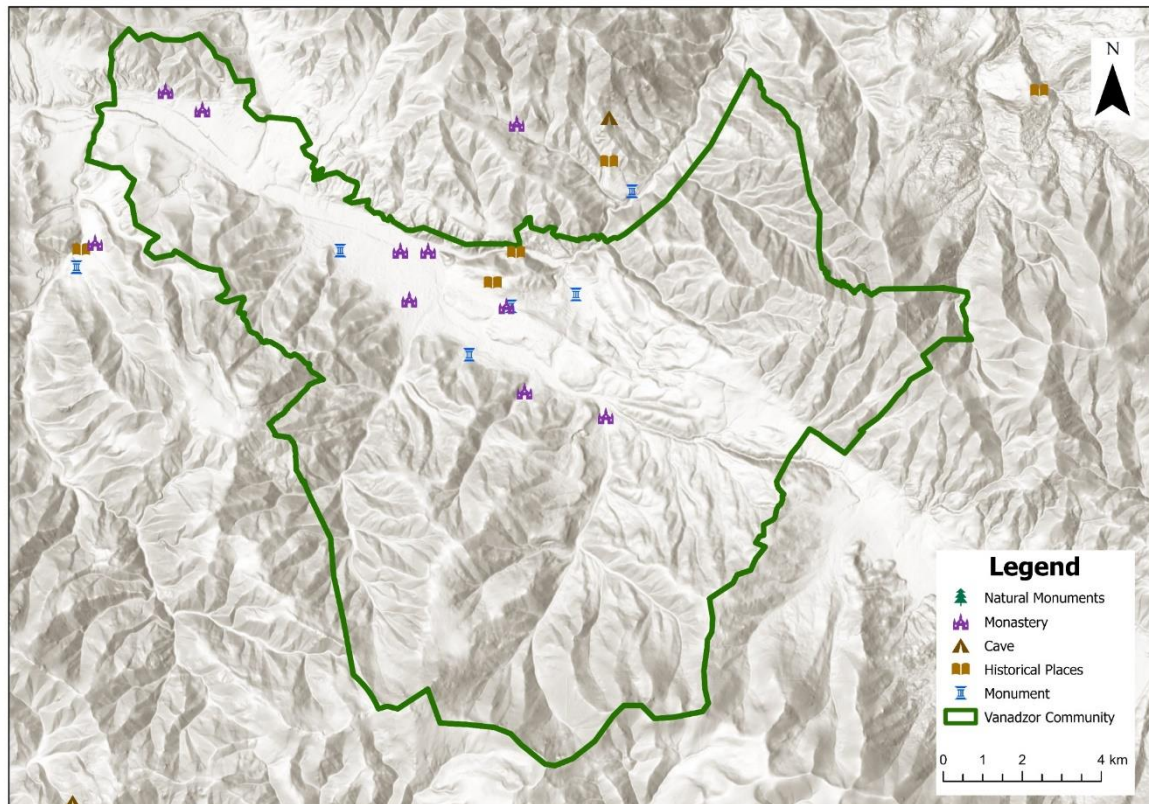
The attraction assessment indicates that Vanadzor's ecotourism potential is distributed across a combination of urban-green, active-recreation, cultural and surrounding forest assets rather than concentrated in a single flagship site. Table 1 therefore identifies the priority attraction clusters that can structure the future ecotourism offer and clarifies the visitor role of each. Because several routes and natural areas still require field, management and safety validation, the table also specifies the evidence that should be confirmed before individual attractions are promoted or incorporated into formal products.

Table 1. Priority attraction

Priority attraction / cluster	Visitor role	Evidence and validation needed
Vanadzor Botanical Garden	Accessible biodiversity walk, family/school learning, seasonal botany and urban-green interpretation	Confirm management approval, boundary/entrance, paths, flora/fauna baseline, accessibility, facilities, seasons, group rules and maintenance
Boo Mountain Bike Park / Mount Pambak recreation	Half-day or full-day biking and active-nature anchor	Confirm operator offer, route grades/status, rental/guiding, safety, environmental rules, capacity, insurance, season and connection to city services
Urban-edge hiking and viewpoints	Short/medium guided or self-guided walks from the city base	Number and field-validate routes; land manager, slope/fire risk, forest-work interface, waymarking, emergency access and closure alternatives
Industrial-to-green urban route	Botanical, cultural and city-transition story linking green gateways with selected industrial-era urban form	Select safe public-space alignment; design interpretation, planting/visual screening, accessibility and maintenance with Municipality and site managers
Cultural institutions, events and local-product nodes	Extend an outdoor visit into an evening/overnight city experience	Confirm programme calendar, booking/referral, opening hours, providers, local-product origin and visitor-spending links
Lori linked-route gateways	Connection toward Tumanyan and Alaverdi for two-to-three-day packages	Validate journey times, operators, handovers, stays, route/site rules, cancellations and local spending in each community

Source: Authors' elaboration.

Figure 5. Indicative attraction categories in and around Vanadzor Community

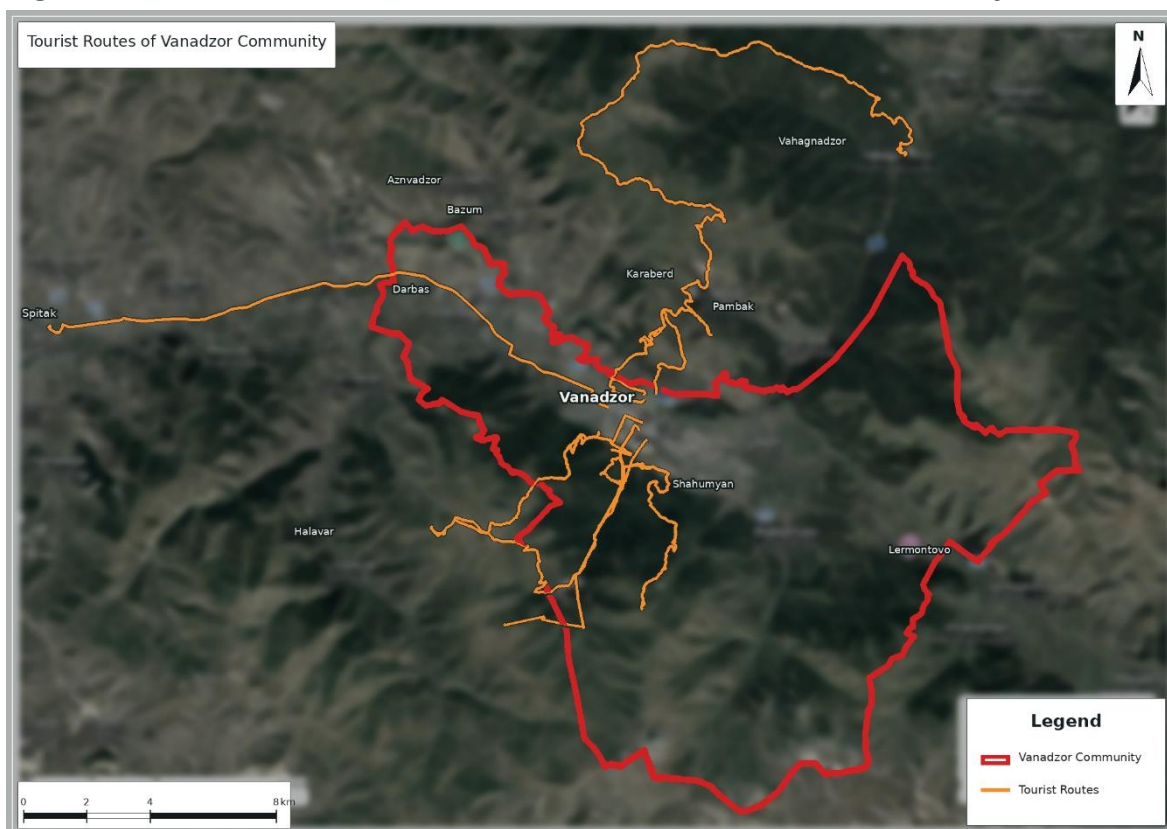


Note: The symbols are not named or numbered, and the map does not identify the Botanical Garden, Boo Mountain Bike Park, approved routes, zoning, hazards or services. The priority attraction register above must be converted into a numbered field-verified GIS layer before implementation.

Source: Project GIS layers, 2026.

Analysis of available official and user-generated spatial data identifies partly overlapping walking and cycling alignments. Four groups emerge: urban-edge and viewpoint routes; the Boo Mountain Bike Park and forest-slope corridor; southern routes towards Mayri Blur, Anpayt and Maymekh; and regional links north-east to Shikalich-Qarhat and west to Spitak. Alignments range from approximately 5 km to 38 km, but several are loops, transfers or alternative traces rather than ready-made products. Map 3 is therefore an initial spatial inventory.

Figure 6. Indicative tourist-route network in and around Vanadzor Community



Note: Route alignments are indicative and require field validation before publication or promotion.

Source: Analysis of available official and user-generated spatial data.

The mapped network supports Vanadzor's role as an urban base for outdoor recreation. Urban-edge and viewpoint routes can serve half-day hikes; Boo Mountain Bike Park can anchor biking and forest-slope products; and the Mayri Blur, Anpayt-Maymekh and Shikalich-Qarhat alignments require guided, seasonal and safety arrangements. The Spitzak connection is a regional extension, not a stand-alone Vanadzor route.

The mapped network is not immediately visitor-ready. Duplicate traces must be consolidated, and each selected route verified for legal and forest-management status, distance and elevation, surface condition, hazards, emergency access, signage, operator and maintenance responsibility. Initial development should prioritize short and medium-length routes linked to clear urban or recreation gateways and existing services.

5.2 Activities

The most relevant existing activities in Vanadzor are hiking and biking, and this should remain the basis of the tourism baseline. The site is not currently structured around camping or guided tours in the package, so the actual activity profile is narrower and more specific than in some of the other communities. Hiking is already part of the local outdoor-use pattern, and this is reinforced by initiatives such as ArmGeo Lori, which organizes hikes starting from Vanadzor and treats the city as an entry point to the surrounding Lori landscape. This is important because it shows that Vanadzor already functions as a base for route-based outdoor activity rather than only as a city with nearby green spaces. Biking is an even more distinctive feature in Vanadzor than in the other pilot sites. Boo Mountain Bike Park, located in the forest area of Mount Pambak in Vanadzor, gives the city a concrete active-recreation

tourism asset. It includes a pump track and mountain bike trails and is promoted as the only mountain bike center in Lori. This matters because it gives Vanadzor a specific ecotourism niche: outdoor recreation that is structured, low-impact, and linked to surrounding natural space, but still supported by an urban service base. In practical terms, biking is not just a possible future product here; it is already part of the city's existing tourism and recreation baseline.

5.3 Visitor Flow

'Low to medium visitor flow' is an unmeasured planning classification, not a numerical result. No verified Vanadzor ecotourism count, day/overnight split, occupancy record, expenditure estimate or product conversion rate is available. Year 1 should establish monthly counts/logs for priority routes and the Botanical Garden, bike/product bookings, origin, group type, length of stay, accommodation linkage, indicative spending and event-related use.

This gives Vanadzor a useful planning position. The city already has visible attractions and outdoor activity, but it is not yet under strong ecotourism pressure. In practical terms, this means that tourism organization, route structure, and service linkage can be improved before larger visitor volumes begin to create stronger environmental or management problems. The site is therefore not starting from zero, but it is also not yet operating as a fully formed ecotourism destination.

5.4 Accessibility

'Easy accessibility' means that Vanadzor can be reached comparatively easily and can function as a service base. It does not confirm safe, legal or all-weather access to each forest, slope, Botanical Garden or biking point. Each product needs an access sheet covering route surface, ownership, public/transfer options, season, slope/fire/flood risk, mobile and emergency access, parking/trailhead condition and accessibility for visitors with limited mobility.

6. Suitability Assessment and Zoning

Vanadzor is suitable for controlled ecotourism because it combines an accessible city/service base with Botanical Garden, biking, hiking, cultural and event assets, while the surrounding urban-natural edge still requires route, forest, slope and environmental controls. This classification supports phased product pilots; it does not establish a quantified market or authorize access to every attractive area.

‘Moderate ecological sensitivity’ means: tourism may be possible on validated lower-risk routes and managed visitor paths, but mapped habitats, unstable slopes, forest-work areas, fire closures and science-identified sensitive features may require seasonal control, small groups, rerouting or exclusion. The rating applies to planning at community scale and must be replaced by site-specific evidence for each product.

Vanadzor should serve both day and overnight markets. A day visit can combine one nature activity with city services; one-night packages add an evening cultural/event and food component; two-to-three-day Lori packages link Vanadzor with Tumanyan and Alaverdi. The business objective is to increase the share of visitors who buy a second activity, meal or overnight stay where demand is verified—not to restrict Vanadzor to one-day tourism.

Operational zoning should map: (1) city service and green-gateway areas; (2) controlled-use Botanical Garden, hiking and biking routes with product-specific rules; and (3) temporary or permanent exclusion/closure layers for unstable slopes, sensitive features, active forestry/haulage, fire/severe-weather restrictions and unsuitable off-route vehicle use. The two project maps are contextual inputs and do not constitute approved zoning.

The absence of a sustainable development zone should also be interpreted carefully. Vanadzor clearly has an urban service base, accommodation potential, gastronomy, and cultural life that support ecotourism. However, the package is focused on the nature-based tourism space itself rather than on a broader urban development framework. In practice, the city already performs many of the service-support functions that a sustainable development zone might otherwise formalize. The key planning need is therefore not to designate a separate urban-support zone, but to ensure that the existing city base supports controlled ecotourism in the surrounding landscape more effectively. In practical terms, the zoning result means that Vanadzor is best suited to controlled ecotourism development focused on hiking, biking, selective wildlife observation, and nature-linked recreation in surrounding forest and slope areas, with the city functioning as the main service and support base. The site is not appropriate for unstructured tourism spread into all nearby natural areas, but it is well positioned for a managed ecotourism model that builds on accessibility, active recreation, and urban support while keeping pressure on the urban-natural interface under control.

7. Ecotourism Product Development

The ecotourism product profile of Vanadzor should be built around active outdoor recreation, urban-nature linkage, and local cultural life rather than around a classic protected-area or wilderness model. This is what makes Vanadzor different from the other pilot communities. It is not primarily a forest reserve destination like Dilijan, nor a canyon-and-monastery route like Tumanyan. Its strongest advantage lies in the way the city can function as a service and cultural base for surrounding forests, slopes, and recreation areas. For that reason, ecotourism product development in Vanadzor should focus on experiences that combine accessible nature, physical activity, city-based support services, and local events in a coherent way. The most relevant visitor groups are relatively clear. The first group consists of domestic day and short-stay visitors looking for hiking, outdoor recreation, and easy access to nearby natural areas without the need for a long or remote journey. The second group includes younger and more active visitors interested in biking, trail use, and informal but organized outdoor experiences. This segment is especially important in Vanadzor because the city already has a visible active-recreation identity and a product anchor in Boo Mountain Bike Park. A third group includes urban leisure visitors who may not identify themselves primarily as ecotourists, but who are interested in combining green spaces, events, food, and short outdoor activities within one trip. A fourth group includes culture- and event-oriented visitors whose stay in Vanadzor can be extended through nature-based activities rather than being limited to city-based programs alone.

The strongest product line in Vanadzor is hiking linked to the urban-natural edge. Hiking is already one of the existing activities in the baseline and should remain central to the ecotourism offer. In Vanadzor, however, hiking should not be treated in the same way as in remote mountain communities. The product is stronger when it is framed as accessible outdoor recreation supported by a city base. Short and medium-length hikes in surrounding forest patches and mountain slopes are therefore more realistic than long wilderness-oriented trekking products. These experiences can be strengthened through route marking, viewpoint interpretation, and connection to nearby food or cultural stops in the city. Biking is even more distinctive in Vanadzor and should be treated as a defining product line rather than a secondary activity. Boo Mountain Bike Park gives the city a concrete advantage that the other pilot sites do not have. It already provides mountain biking trails, a pump track, a café, and a recreation-oriented atmosphere in a scenic setting. This means that Vanadzor can build an ecotourism identity that includes active recreation, skill-based outdoor use, and low-impact engagement with the surrounding landscape. In practical terms, biking is one of the strongest ways for Vanadzor to differentiate itself within the pilot package system. It should therefore be developed not only as a sport activity, but as part of a wider ecotourism experience linked to nature, social interaction, and local services.

Wildlife observation should be developed first through the Botanical Garden and selected urban-green/forest-edge routes, but only after a science-reviewed baseline identifies what can be interpreted without disturbance. The tool is a managed biodiversity walk: approved path, guide/self-guided format, seasonal interpretation, group guidance, no collection/disturbance rule, observation log and condition-monitoring points. No species should be marketed until occurrence and appropriate visitor use are verified.

Vanadzor should not attempt to hide its industrial form. The proposed 'Industrial-to-Green Vanadzor' tool interprets the city's transformation: a safe public-space route links selected industrial-era urban features and cultural institutions with the Botanical Garden, green gateways and nature-facing routes. At priority visitor nodes, planting/landscape buffers, clear wayfinding, cleaner viewpoints and restrained interpretation can reduce visual dominance without erasing identity.

Exact sites and design interventions require municipal, property, accessibility and maintenance approval.

The seasonal dimension should also reflect this mixed profile. Spring and early summer are well suited to hiking, biking, botanical interest, and short city-and-nature visits. Summer is the strongest season for combining outdoor activity with festivals, concerts, and local events, and this should be treated as a major advantage rather than an incidental feature. Early autumn is also important because it supports comfortable outdoor use and creates opportunities for local-product experiences linked to mushrooms, berries, herbs, and seasonal foods. Winter should not be treated as a main ecotourism season under the current package logic. The city may remain active year-round as an urban center, but the ecotourism product itself is clearly strongest from spring to autumn.

A practical optional itinerary for Vanadzor should therefore combine active recreation, nature, and city-based experience rather than trying to imitate a wilderness package. A one-day itinerary could begin in the city with orientation and a short cultural stop, continue with a hiking or biking activity in the surrounding natural area, include interpretation on the urban-natural interface and local product identity, and conclude with a meal or local-product experience linked to Vanadzor's event and cultural setting. A second format could be centered more specifically on Boo Mountain Bike Park, combining biking, rest, café use, and an additional short nature route or city-based cultural component. This kind of itinerary is realistic because it uses what Vanadzor already has: access, active-recreation potential, urban support functions, and an event-oriented atmosphere. The product direction for Vanadzor should therefore be defined by accessible active recreation, urban-nature linkage, and service-supported ecotourism rather than by remote nature immersion. The city does not need a large number of disconnected products. It needs a coherent product family built around hiking, biking, limited nature observation, local products, and cultural-event integration. That is the form of ecotourism most consistent with Vanadzor's actual baseline, demand level, accessibility, and broader city identity.

Based on the visitor segments, attraction base and product directions identified above, Vanadzor's ecotourism offer can be organized around a limited number of complementary experiences that combine active recreation, urban nature, culture and local services. Table 2 translates these opportunities into practical product and service tools, identifying the intended format and market, the local operators and spending channels involved, and the minimum safeguards that should be satisfied before launch. The products should therefore be treated as phased operational concepts rather than automatically approved tourism activities.

Table 2. Priority ecotourism product and service tools

Product / service tool	Format and market	Operator and local spending	Launch safeguards
Vanadzor Botanical Garden biodiversity walk	Two- to three-hour guided/self-guided product for families, schools, general and specialist nature visitors	Garden management/authorized guide; information; café/meal; optional culture link	Management approval; flora/fauna and path baseline; seasonal/group rules; accessibility; no disturbance/collection; condition monitoring
Boo Mountain biking and city-service package	Half-day/full-day skill-based active product; optional one-night weekend	Existing operator; bike/guide; café; transport; accommodation and evening culture	Verified trails/grades; equipment and safety brief; insurance; route capacity; weather/fire closure; incident and maintenance logs
Urban-edge hike and green gateway	Half-day or full-day short/medium walk for domestic/international leisure and nature visitors	Local guide or approved self-guided route; meal, local product and accommodation referral	Land manager and forest-unit validation; slope/fire/weather screen; route marking; emergency access; closure alternative
Industrial-to-Green Vanadzor walk	Half-day accessible urban-nature-cultural route; add-on to a city or event visit	Local guide, cultural sites, Botanical Garden/green nodes, food and craft/product stops	Safe public alignment; permission/opening hours; accurate interpretation; planting/wayfinding maintenance; avoid unsafe industrial premises
Festival + outdoors weekend	One-night spring-to-autumn package combining nature activity, event/culture and gastronomy	DMO/booking referral, activity provider, accommodation, event venue and food/product sellers	Confirmed calendar, capacity and cancellation plan; transport handover; weather alternative; recorded local spending
Conditional legal-road trailhead shuttle	Scheduled 4x4/minibus transfer on an existing legal road followed by a guided walk; no recreational off-roading	Licensed transport/driver, guide, meal and optional stay	Forest/land-manager approval; fixed road and stops; no cross-country or active-work/sensitive-area entry; vehicle, insurance, capacity, weather and incident rules
Vanadzor–Tumanyan–Alaverdi Lori route	Two-to-three-day urban-nature, active, canyon and heritage itinerary	Lori DMO/joint operators; guides, transport, accommodation, meals and products in each community	Verified route/site conditions and times; handovers; booking/cancellation; benefit split; common visitor rules and data method

Source: Authors' elaboration.

8. Infrastructure and Service Needs

Vanadzor has a stronger urban service base than most of the pilot communities, but this should not be confused with a functioning ecotourism infrastructure system. The city already has roads, public space, cultural venues, everyday services, and active recreation potential. At the same time, the ecotourism layer itself remains weakly organized: trails are present, but signage is absent, there is no visitor center, and accommodation is not yet integrated into the ecotourism structure. This makes Vanadzor different from both remote communities with almost no service base and established destinations with a more mature tourism system. The main issue here is not the complete absence of infrastructure, but the gap between a city that can host visitors and a nature-based tourism offer that is still only partly organized.

The first infrastructure object is a verified route-and-service layer, not a new building. Each attraction/product record must show legal access, forest/site manager, route, hazards/sensitivity, operator, booking/visitor format, existing toilets/food/accommodation/transport, gap, maintenance owner and cost basis. Physical works follow this validation.

A major weakness is route and visitor orientation. Vanadzor already supports hiking and biking, and the city has a real outdoor-recreation profile, including Boo Mountain Bike Park and surrounding forest and slope areas. Yet the tourism space is still weakly legible. Missing signage, lack of marked starting and ending points, weak trail orientation, and absence of a simple visitor-information system all reduce the quality of the experience and increase the likelihood that outdoor use remains fragmented and informal. In Vanadzor, this is especially important because the destination is accessible and likely to attract casual visitors who may not arrive with detailed route knowledge. The practical priority is therefore not major physical construction, but a functioning route system with clear trailheads, directional signs, route markers, and simple interpretation points for both hiking and biking. Visitor information and interpretation are also underdeveloped. Vanadzor's ecotourism offer depends heavily on the relationship between the city and its surrounding natural areas, which means that visitor orientation is more important here than in a compact heritage site or a single-attraction destination. At present, there is no visitor center, and the stakeholder process also pointed to poor mapping and weak visibility of ecotourism sites. In practical terms, the first improvement does not need to be a new standalone building. A more realistic step would be to create a small information function within an existing municipal, cultural, or recreation-related space and to combine this with visible outdoor information boards and digital route support. This is the kind of intervention that can make Vanadzor's existing assets feel connected rather than scattered. Another issue is the weak linkage between urban services and nature-based use. Vanadzor clearly has city-level services, but the package shows that accommodation is not yet part of the ecotourism structure. This should not be read as meaning that the city has nowhere to stay. Rather, it shows that overnight stays, food services, and visitor support are not yet linked deliberately to ecotourism routes and outdoor products. In Vanadzor, the practical focus should therefore be less on building new accommodation and more on connecting existing city-based hospitality and food services to hiking, biking, and green-space experiences. This is a different type of infrastructure challenge from the one seen in rural communities, but it is still a real one.

Basic visitor facilities are another weakness. The stakeholder process highlighted the lack of public toilets at eco-sites, and this is highly relevant in Vanadzor because active recreation and short outdoor visits are among the main product lines. Where visitors use trails, bike routes, or green areas on a regular basis, even simple missing facilities can reduce comfort, shorten stays, and create sanitation problems. In a city-based ecotourism site, these needs are often easier to solve than in remote landscapes, which is precisely why they should be addressed early.

Environmental infrastructure should also remain in view even though the package is not dominated by utility issues in the way Dilijan is. Vanadzor's ecotourism value depends in part on the quality of its green and peri-urban environment. This means that route improvement, visitor boards, and rest points should be planned in ways that do not add pressure to already fragile urban-natural edges. The wider background is relevant here as well: earlier city-level environmental planning has already shown that green-space management and environmental quality are not secondary issues in Vanadzor. For ecotourism, this means that small infrastructure should improve access and visitor experience without degrading slope areas, green patches, or scenic quality. For Vanadzor, the most realistic infrastructure agenda should focus on a limited set of practical improvements:

- Clear trailheads, route markers, and directional signage for hiking and biking routes
- Simple interpretation points and visible visitor information boards
- Improved digital mapping and route visibility
- Small visitor-information functions within existing city or recreation spaces
- Public toilets and other basic facilities at priority outdoor-use sites
- Stronger linkage between city-based services and surrounding nature routes
- Careful siting of any new small infrastructure in lower-risk and already used areas

Priority needs are: validated Botanical Garden and hiking/biking visitor paths; trailheads, waymarkers and shared-use safety information; information/booking functions in an existing space; basic toilets only where use and maintenance justify them; green-gateway wayfinding and limited landscape screening; links to existing accommodation/food/culture; and route-condition, closure and emergency information. New construction is not the default.

9. Governance and Institutional Arrangements

Vanadzor requires a city-led but land-manager-approved operating model. The Municipality coordinates public space, access, services and implementation; Lori DMO organizes compliant packaging and market feedback; the competent Vanadzor Forest Economy/forest-management unit validates forest routes and seasonal compatibility; Botanical Garden management controls the garden product; private operators deliver services; and culture, community, research and emergency actors support interpretation, inclusion, monitoring and safety.

Vanadzor Municipality should therefore play the central coordinating role. This is the most appropriate arrangement because the site's ecotourism functions depend heavily on urban services, public-space management, route access, visitor information, and linkage between the city and its surrounding natural areas. Vanadzor is not a case where tourism can be managed only through a forest or conservation institution. The municipality is the actor best placed to connect outdoor tourism with local roads, public infrastructure, cultural institutions, event spaces, and city-based services. This role becomes even more important because the site has medium ecological sensitivity and easy access, which means that visitor use can expand relatively quickly if local coordination remains weak. A particularly important governance asset in Vanadzor is the presence of a Destination Management Organization operating in the city. The stakeholder meeting makes clear that this DMO already works beyond simple promotion. Its role includes facilitating cooperation among municipalities, local communities, and private-sector actors; supporting hiking tourism; promoting greener tourism practices; targeting niche tourism markets; and strengthening regional linkages, including between Dilijan and Vanadzor. This is highly relevant because Vanadzor is one of the few pilot sites where an institutional platform for tourism coordination already exists and can be used directly in the ecotourism package rather than imagined as a future structure.

The private sector role is also more concrete in Vanadzor than in several of the smaller pilot communities. Boo Mountain Bike Park is the clearest example. It is not simply an attraction; it already operates as a structured eco-recreation business combining biking trails, a café, a camping area, and a pump track. In governance terms, this matters because it shows that the private sector in Vanadzor is capable of delivering organized outdoor tourism functions rather than only general hospitality. More broadly, local cafés, event-linked businesses, small service providers, and future route-linked operators should be treated as part of the governance system, not only as beneficiaries. In a city-based ecotourism site, service delivery and management quality are closely connected.

NGOs and support organizations also have a practical role. The package itself assigns NGOs a role, and this is reasonable in the Vanadzor context. Earlier work on local environmental planning in the city shows that civil society and project-based support have already been relevant in identifying environmental issues and mobilizing public participation. In ecotourism terms, NGOs and support organizations are useful not as replacement managers for the municipality, but as facilitators of route planning, environmental awareness, event integration, youth and women's participation, and improvement of local coordination. This is particularly important in a site where ecotourism is tied to the urban-natural interface and to behavior in public and peri-urban spaces. What remains weak is the role of community groups and formal joint-management arrangements. In the current package, community groups are not yet assigned a formal role, and this should be taken seriously rather than treated as a minor omission. Vanadzor has active tourism and recreation potential, but it does not yet have a structured model through which neighborhood groups, user groups, or local civic actors participate in route stewardship, shared management, or benefit distribution. This matters because a city-based

ecotourism system can easily become fragmented if public authorities, businesses, and visitors operate without a broader local platform for coordination.

This makes coordination the key governance need. In Vanadzor, the most realistic institutional arrangement would be a local coordination platform involving the municipality, the DMO, private recreation and service actors, NGOs, and, where relevant, cultural institutions and environmental specialists. The function of such a platform should be practical rather than bureaucratic: route use, signage, visitor information, seasonal access issues, integration of events with outdoor recreation, local-product promotion, and general alignment between city services and nature-based tourism. In a site like Vanadzor, coordination is less about conservation zoning than about preventing fragmentation between urban life, tourism services, and surrounding natural areas. Public-private partnership is not yet in place, and the package is correct not to rely on it at the current stage. That does not mean cooperation is impossible. In Vanadzor, the most realistic future PPP model would be modest and operational: support for signage, route maintenance, small visitor facilities, event-linked outdoor programming, or visitor information points connected to existing recreation assets. A large-scale PPP model would not fit the current tourism structure. The more realistic path is gradual cooperation built around active recreation, city-based service delivery, and better management of surrounding nature-use areas.

Revenue-sharing and co-management are also absent, and this remains a governance gap. In a lower-pressure site this might be less important, but in Vanadzor the absence of such arrangements risks leaving ecotourism as a collection of disconnected functions: city events, outdoor recreation, local businesses, and natural assets that all exist, but without a shared system for distributing responsibility or benefit. For that reason, future governance improvement should move toward clearer local arrangements on route maintenance, visitor information, event-to-nature linkages, and the role of local businesses in supporting the ecotourism system. For Vanadzor, the most effective governance model is therefore one in which the municipality leads local coordination, the DMO helps connect actors and tourism flows, private and NGO actors strengthen delivery and innovation, and a more formal local coordination platform gradually links the city's cultural and service base with its surrounding natural recreation areas. Under current conditions, that is the arrangement most consistent with the site's actual scale, accessibility, active-recreation profile, and urban-natural character.

The governance analysis shows that no single institution can manage the complete Vanadzor ecotourism system. Effective implementation requires complementary roles across municipal coordination, destination management, forest oversight, Botanical Garden management, private service delivery and technical support. Table 3 translates this institutional structure into a practical division of responsibilities and identifies the operating tools through which each actor should contribute to route approval, product delivery, visitor information, monitoring and maintenance.

Table 3. Division of responsibilities and operating tools

Actor	Core responsibility	Operating tool
Vanadzor Municipality	Convene platform; integrate public space, access, services, signs, green gateways, local priorities and implementation data	Annual action plan; attraction/route/service register; designated coordinator
Lori DMO	Package and promote only approved products; booking/referral; provider standards; visitor and market feedback; Lori route coordination	Approved product directory; common booking/referral and monitoring method
Competent Vanadzor Forest Economy / forest-management unit	Confirm land/access, forestry-work and haulage compatibility, roads, closures, fire rules and ecological concerns	Forest–Tourism Compatibility Register; route/season approval and closure notice
Vanadzor Botanical Garden management	Approve paths, interpretation, biodiversity baseline, visitor rules, facilities, monitoring and maintenance	Garden visitor-use plan; biodiversity/condition monitoring sheet
Boo Mountain Bike Park and other tourism/service providers	Operate products; brief visitors; record bookings/incidents; maintain agreed assets; link meals/stays/products	Provider agreement; safety/visitor code; service and maintenance logs
Culture, community, NGO/research and emergency partners	Interpretation, events, inclusion, flora/fauna/hazard review, training and emergency readiness	Terms of reference; event/route calendar; training and annual technical review

Source: Authors' elaboration.

10. Visitor Management System

The immediate visitor-management system is: (1) a numbered attraction and route register; (2) mapped legal access, forest-work, habitat, slope/fire/weather and closure layers; (3) route/product status with operator, season, group/vehicle/guide conditions and alternative; (4) simple booking/referral and pre-visit information; (5) activity-specific visitor codes for hiking, biking, the Botanical Garden, events and transfers; (6) signs only after approval; (7) inspections, counts, provider/guide and incident logs; and (8) named maintenance, closure and emergency owners.

Community-wide daily quotas should not be invented before a baseline exists. Route- or product-specific group, bike, vehicle, season or guided-use limits may be set where safety, garden/forest management, slope condition, biodiversity or service capacity justify them.

Seasonal route status is required for wet/unstable surfaces, fire or severe weather, forestry work and maintenance. Visitor rules prohibit new informal shortcuts, litter, uncontrolled fire/camping, cross-country vehicle use and entry into closed or active work areas. Hiking and biking conflicts require separated or clearly shared routes. Guided use is applied where interpretation, safety or management approval requires it; accessible self-guided use remains possible on approved lower-risk routes.

11. Local Economy and Benefit Sharing

Vanadzor has a stronger urban economic base than most of the pilot communities, and this changes the logic of benefit sharing. The city is not starting from a weak rural service base, but from a broader urban economy that already includes cultural institutions, events, food services, recreation, and everyday commercial activity. In 2025, Vanadzor city had a population of 78.1 thousand and Vanadzor community 87.7 thousand, which means that ecotourism benefits can potentially move through a much wider set of services and small businesses than in the smaller pilot sites.² This also explains why ecotourism in Vanadzor should be treated less as a stand-alone niche and more as a way to connect surrounding natural areas with the city's existing service economy. The wider Lori economy supports this interpretation. In 2024, Lori accounted for 8.8% of Armenia's agricultural output, 4.9% of industrial output, and 1.1% of services. The value of accommodation and food service activities in the marz reached 3,739.9 million AMD, while average monthly nominal wages reached 163,321 AMD. These figures show that Vanadzor operates within a region where tourism and hospitality are already economically visible, but still secondary to the larger agricultural and industrial structure. In practical terms, this means that ecotourism can strengthen local diversification, but it is unlikely to become the dominant economic branch of the city.

The jobs effect of ecotourism in Vanadzor is therefore likely to be broad but moderate in scale.

The most realistic employment channels are already visible in the city's current profile: hiking- and biking-related services, cafés and food points linked to outdoor use, cultural and event-based services, local guiding, visitor information, and product sales connected to fairs or recreation sites. This is particularly relevant in Vanadzor because ecotourism here is not based on one protected landscape or one large attraction. It is based on linking active recreation and surrounding natural areas to the city's service base. Under these conditions, even small improvements in route organization, event integration, or recreation services can create real local income without needing major construction or large visitor numbers. This is also consistent with the package itself, which identifies local employment and local product sales as realistic benefit channels, while showing that formal community revenue-sharing is still absent. Local products are an important but slightly different opportunity in Vanadzor than in the more forest-dependent communities. The package identifies honey, herbs, mushrooms, and berries as present, and these can realistically support food points, seasonal fairs, small sales, café integration, and event-linked tourism. In Vanadzor, however, their value comes less from a remote forest-harvest image and more from their ability to connect nature-based tourism with an urban audience. Local product fairs, gastronomy events, and recreation-linked sales are therefore especially relevant. This gives Vanadzor a practical advantage: products can be integrated into tourism not only through trails and outdoor stops, but also through the city's wider cultural and event life.

Inclusion should also be treated as an economic issue. Lori's registered unemployment data for the end of 2024 show 5,617 officially registered unemployed persons in the marz, including 2,241 men and 3,376 women.³ This indicates that women form the larger share of registered unemployed in Lori and suggests that tourism-related income opportunities should be designed in ways that are practically accessible to them. Vanadzor is well placed for this because many of its likely ecotourism functions are compatible with small enterprise and service-based participation: food provision, local product sales, visitor orientation, event support, hospitality, and recreation-related services. Youth inclusion is also especially realistic here, given the city's stronger cultural life, active-recreation profile, and existing

² Statistical Committee of the Republic of Armenia

³ Statistical Committee of the Republic of Armenia

outdoor initiatives such as Boo Mountain Bike Park. A formal community revenue-sharing mechanism is not yet in place, and this remains a governance weakness. In Vanadzor, this matters because the city already has the service and institutional base to capture benefits, but those benefits can easily remain fragmented across events, recreation, private businesses, and cultural activity without any clearer local system for shared responsibility. For that reason, benefit sharing in Vanadzor should gradually move beyond individual business gain toward clearer links between outdoor tourism, local product promotion, small service delivery, and maintenance of the ecotourism system itself. At the current stage, however, the most realistic model remains one in which ecotourism creates visible local value through employment in recreation and service functions, wider use of local products, and stronger participation of women and youth in the city's growing urban-nature tourism economy.

Local benefit should be measured by product, not assumed from general tourism. Each pilot should name the guide/activity/transport/accommodation/food/culture/product providers, record booking and visitor-spending links, and test the local share. A disclosed provider contribution—financial or in-kind—may support approved route, garden, interpretation or monitoring costs only after a lawful collection, maintenance and reporting arrangement is agreed.

12. Environmental and Climate Considerations

The environmental objective is to keep tourism on approved, safe and maintainable routes while protecting the Botanical Garden, forest/slope habitats and the wider urban-green edge. Key pathways are informal route spread and erosion; biking/walking conflict; off-road vehicles; litter and fire; unverified wildlife promotion or disturbance; active forestry/haulage overlap; unstable slopes and severe weather; and visually intrusive or poorly maintained small works. Each product requires approval, route/season/activity rules, inspection points and a closure/repair response.

The social-environmental side is also moderate rather than severe. Vanadzor has a much stronger urban and service base than the smaller pilot communities, which means visitor use can be absorbed more easily through existing roads, public space, food services, and city facilities. This reduces the likelihood that tourism will immediately create strong local tension. At the same time, a city-based ecotourism site can still create pressure if outdoor use remains weakly organized and concentrated benefits do not reach local service actors. The more realistic issue is therefore not direct conflict, but fragmentation: active recreation, events, local products, and surrounding nature may all function separately instead of as one managed system.

Cultural heritage is present in Vanadzor, but it is not the most sensitive element of the ecotourism package. The city does have cultural institutions, event life, and an important artistic identity, yet the package is not built around fragile monastery complexes, archaeological remains, or heavily visited heritage monuments. Tourism pressure is expected to remain focused more on surrounding recreation areas, active use, and urban-nature experiences than on heritage concentration. For that reason, cultural risk remains comparatively low, provided that new tourism facilities do not become visually intrusive and that event-based growth does not crowd out the natural character of peri-urban recreation spaces. The more important climate-related issue in Vanadzor is slope and weather-related instability rather than drought or fire. Drought and fire can remain secondary concerns in this package and should not be overstated. The table rightly places them at the lower end. Landslide exposure, however, is more relevant. This is not abstract. The Vanadzor–Bagratashen road section has a documented landslide history, including a major event that blocked traffic and required a government-level response. That does not mean the whole ecotourism area is unstable, but it does confirm that slope-related risk in and around the Vanadzor landscape is real enough to shape route planning, access decisions, and the placement of small visitor infrastructure. At the wider Lori level, the May 2024 floods also showed how northern Armenia’s transport and settlement systems can be disrupted by intense rainfall, which matters for a city whose ecotourism profile depends on short access to surrounding natural areas.

The wider policy context also matters. Armenia already has a National Climate Change Adaptation Action Plan for 2021–2025, and the tourism sector has been recognized within the country’s climate adaptation planning. The broader tourism and environment policy review also notes that climate change, water management, and environmental quality affect tourism destinations, while the tourism law itself still provides limited practical detail on trails, trailheads, and related site-management tools. For Vanadzor, this means that local ecotourism planning cannot rely on a highly detailed national trail-management regime; it needs to translate broader climate and environmental policy into simple local decisions on route siting, green-space use, slope caution, and visitor behavior.

The most appropriate mitigation approach for Vanadzor is therefore practical and preventive:

- Concentrate hiking and biking on defined routes rather than allowing informal spread across surrounding slopes and green patches.
- Avoid placing small visitor infrastructure on unstable slopes or in erosion-prone edge areas.
- Strengthen visitor information on route use, littering, and low-impact behavior in peri-urban natural spaces.
- Keep open-fire and uncontrolled camping out of the city's surrounding recreation landscape.
- Use seasonal caution where wet periods or surface instability reduce route safety.
- Improve green-space and route planning in ways that support recreation without further weakening urban ecological quality.
- Connect tourism growth more clearly with city-based services and local management so that environmental pressure is matched by visible local benefit.

In Vanadzor, the environmental challenge is not overtourism or strict protected-area conflict. It is the quieter risk of allowing an accessible urban-nature destination to grow in a fragmented way, with recreation spreading faster than management. That is why the appropriate model is controlled, low-impact ecotourism with strong attention to route organization, slope safety, and the long-term quality of the city's green edge.

The environmental and climate considerations described above need to be translated into clear operating decisions at the level of individual routes and products. Table 4 therefore links the principal risk pathways relevant to Vanadzor with the corresponding preventive controls and the management response required when conditions deteriorate or become unsafe. This approach allows tourism activity to remain flexible while ensuring that biodiversity, slope stability, forestry operations, fire risk and the quality of the urban-natural landscape are actively managed.

Table 4. Environmental and climate risk–response tool

Risk	Product/route control	Trigger and response
Botanical Garden or habitat disturbance	Approved path and interpretation; science baseline; no collection/disturbance; group/season rule where needed	Condition decline or unverified claim → suspend promotion, correct content, restrict or reroute
Trail erosion, slope instability and severe weather	Field/hazard screen; avoid unstable works; status check and alternative	Warning or damage → close, inspect, repair/reroute, then authorize reopening
Forestry work, haulage or forest-road conflict	Seasonal compatibility register; no route in active work/closed area	Forest-unit notice → close segment, notify bookings and activate alternative
Fire, litter, camping and vehicle misuse	Visitor code; approved stops; no cross-country driving; inspection and removal owner	High danger or breach → restrict activity, correct operator practice, suspend or close
Industrial/urban visual pressure and intrusive works	Green gateways, restrained design, existing-space reuse and named maintenance	Design/maintenance failure → revise, screen, relocate or remove intervention

Source: Authors' elaboration.

13. Monitoring Framework

The monitoring framework for Vanadzor is intended to support adaptive management by tracking whether ecotourism development remains compatible with environmental and safety conditions, forest and Botanical Garden management requirements, local economic objectives and visitor expectations. The main monitoring objectives are to measure visitor use and length of stay; verify that tourism remains on approved routes and complies with forest, garden and seasonal rules; detect trail, habitat, litter, fire and slope problems at an early stage; assess local provider participation and visitor spending; monitor inclusion and visitor experience; and trigger timely adjustments to routes, products, maintenance, closures or promotion where necessary. Table 5 translates these objectives into indicators, initial directions or targets, monitoring frequency, responsible actors and corresponding management responses.

Table 5. Monitoring framework

Objective	Indicator and baseline	Initial direction/target	Frequency and lead	Management response
Visitor and stay baseline	Route/garden users, bookings, origin, day/overnight, stay length and accommodation link. Baseline: not available	Use one Year 1 method and repeat; increase verified package conversion without exceeding conditions	Monthly in season; annual summary. Municipality + DMO/providers	Adjust products, schedule, information and promotion
Approved use and safety	Open/closed routes, forest/garden approvals, incidents, unauthorized vehicle/off-route use	Zero operation in closed/active-work areas; all products reviewed	Pre-season and change-triggered. Land/site managers + Municipality	Close/reroute, notify bookings, correct/suspend operator
Environmental/route condition	Selected path/trail width, erosion, informal paths, litter/fire signs, habitat/garden condition and marker state	No net tourism-related deterioration after baseline	Pre-/post-season. Forest/garden managers + technical support	Repair, restrict activity/group/season or temporarily close
Local value	Active local providers; bookings; meals/stays/products; indicative local visitor spending and provider contribution	Year 1 baseline; increase verified local linkages	Six-monthly/annual. Municipality + DMO/providers	Redesign supplier, booking, pricing or package links
Participation and inclusion	Women/youth among owners, workers, guides, trainees and event/product providers	Disaggregated baseline and annual review	Annual. Municipality + partners	Adapt outreach, training, timing and small-business support
Visitor quality and conduct	Satisfaction, complaints, rule breaches, interpretation accuracy and unresolved defects	Improving satisfaction; no unresolved critical breach	Per product; annual review. Providers + DMO/Municipality	Coaching, correction deadline, content change or suspension

Source: Authors' elaboration.

Vanadzor-specific field focus. The common indicators in Table 5 should be applied through fixed observation points on approved Botanical Garden paths, urban-edge hiking routes, Boo Mountain Bike Park and other promoted walking or cycling alignments. Monitoring should record trail widening and slope erosion, litter and off-route movement, fire or severe-weather restrictions, forest-work conflicts, marker and interpretation condition, hiking-cycling conflict points and any deterioration of garden paths or biodiversity features. Visitor peaks linked to events and weekends should be recorded separately because they may create short, concentrated pressure that annual totals do not show.

Stay, service use and local value. Vanadzor's distinctive performance test is whether accessible day recreation is converted into optional overnight stays and paid use of city-based services. Route, garden and event records should therefore be reviewed with accommodation, cafe and food use, guiding, cycling and legal transport services, local-product sales and visitor feedback. The same review should show whether outdoor activity is linked to the city's cultural and event calendar and whether women- and youth-led providers participate in the resulting income.

Review and management response. Vanadzor Municipality should review the combined results with Botanical Garden management, the competent forest-management unit, Lori DMO, route and recreation operators and relevant emergency or site actors before and after the main season and following significant incidents. Each review should document the decision, responsible actor and completion date, including maintenance, revised visitor briefing, shared-use controls, rerouting, seasonal restriction, temporary closure, product redesign or readiness for the next implementation phase.

14. Investment and Implementation Plan

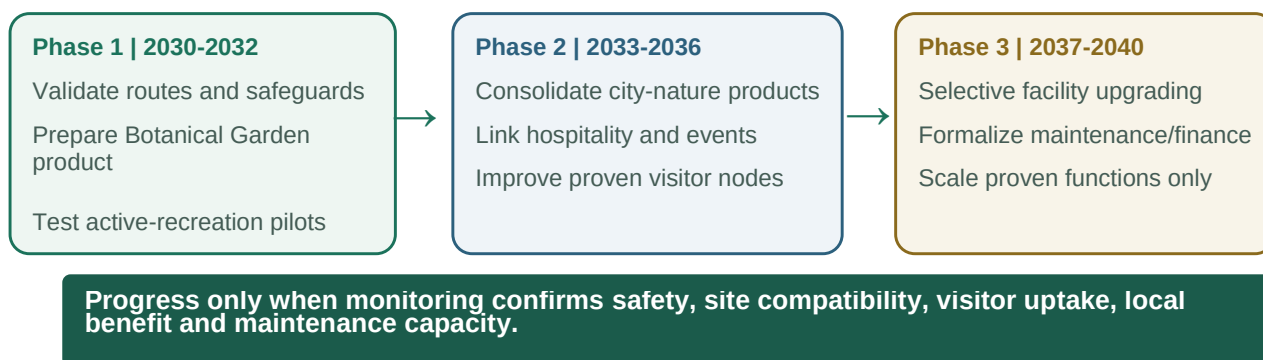
The investment logic for Vanadzor should be phased, selective, and clearly focused on improving the interface between the city and its surrounding natural recreation areas. Unlike Dilijan, where the central issue is managing already high visitor pressure in a biodiversity-rich protected landscape, or Tumanyan, where the main challenge is to make a fragile canyon-and-heritage corridor minimally functional for tourism, Vanadzor starts from a different position. It already has an urban service base, active-recreation potential, cultural life, and easy access, but the ecotourism layer itself remains weakly structured. Trails are present, but signage is absent, there is no visitor center, accommodation is not yet part of the ecotourism structure, no PPP is in place, and financial viability is currently assessed only in the low-to-medium range. At the same time, the package identifies public and private financing as relevant and points to products, rather than entry fees or formal tourism services, as the most realistic initial revenue source.

The wider regional context supports a gradual but realistic investment pathway. Lori already has an active, though still moderate, tourism and hospitality economy. In 2024, accommodation and food service activities in Lori reached 3,739.9 million AMD, while average monthly nominal wages reached 163,321 AMD. These figures show that Vanadzor is not operating in an empty market environment. It sits within a marz where tourism-related services exist and where the city can realistically strengthen its role as an urban base for hiking, biking, events, and nature-linked visits. At the same time, the regional figures are not large enough to justify an assumption of rapid commercial expansion. That is why the implementation logic should prioritize practical improvements that improve usability and local value capture rather than expensive destination-building measures.

The investment priorities presented below follow directly from the product, infrastructure, governance, visitor-management and monitoring needs identified in the preceding chapters. The priority is to establish the basic operational system required for Vanadzor's urban-nature ecotourism model to function effectively: validated attractions and routes, Botanical Garden readiness, safe hiking and biking infrastructure, visitor information, coordinated service delivery and monitoring. Table 6 translates these needs into specific investment objects, minimum outputs, responsible actors and indicative sequencing. Costs should be established only after site validation, technical design, quantities and operating and maintenance responsibilities have been confirmed.

Figure 6 summarizes the common three-phase implementation sequence. The dates indicate planning periods rather than automatic progression; movement to the next phase depends on the monitoring evidence and readiness conditions stated below.

Figure 7. Phased investment and implementation sequence



Phase 1

Table 6. Investment planning

Investment object	Minimum output	Lead / partners	Timing	Cost status
Attraction, route, zoning and forest-compatibility validation	Numbered GIS/field register, approved routes/zones, legal access, hazard/season/forestry rules and alternatives	Municipality + forest/garden/site managers + GIS/technical support	First priority	Scope and field days required
Botanical Garden visitor and biodiversity readiness	Baseline, approved path/product, interpretation, accessibility/facility gaps, monitoring and maintenance plan	Garden management + Municipality + biodiversity/accessibility support	Early pilot	Assessment and design required
Hiking/biking trailheads, waymarking and safety	Only for approved routes; shared-use rules, quantities, installation and maintenance owner	Municipality + forest/site managers + bike/guide operators	After validation	Bill of quantities required
Information, booking and Lori route hub in existing space	Product directory, booking/referral, maps/status, visitor code and provider links	Municipality + Lori DMO/providers	Early pilot	Fit-out, system and staffing plan required
Industrial-to-green wayfinding and green gateways	Approved public-space route, interpretation, limited planting/visual screening and maintenance schedule	Municipality + site/culture partners	Pilot after design	Site design and quantities required
Monitoring, counts and emergency/closure tools	Forms/logs, selected counters where justified, route/garden condition points, notification and emergency information	Municipality + forest/garden managers + DMO/emergency partners	Start Year 1; ongoing	Equipment and staff time to be costed
Provider training and product pilots	Guide/bike/transport/service agreements, safety/environmental procedures, local-spending data and test departures	DMO + Municipality + providers/technical partners	Years 1–2	Cohort and pilot design required

Source: Authors' elaboration.

For the period 2030–2032, the priority should be basic operational structuring of the ecotourism system. Vanadzor does not need major tourism construction in the early phase. What it needs is a visible and functioning framework that connects its city base to surrounding outdoor routes and recreation areas. The most important actions in this phase should include:

- Validation of priority hiking and biking routes in the surrounding forests and slope areas
- Installation of trailheads, route markers, directional signs, and simple interpretation points
- Creation of basic visitor-information functions within existing city or recreation spaces
- Preparation of practical maps and digital route information
- Identification of local service actors that can support route-based outdoor use, product sales, and event-linked ecotourism
- Establishment of a local coordination platform involving the municipality, the dmo, recreation operators, and other local actors

This phase should remain management-oriented and relatively low-cost. Because Vanadzor is already accessible and already has a recreation profile, even modest investments in route clarity, visitor information, and coordination can significantly improve how ecotourism functions in practice.

Phase 2

For the period 2033–2036, the emphasis should shift toward product consolidation and stronger linkage between outdoor recreation and the city’s economic and cultural life. If the first phase succeeds in making the recreation landscape more legible and organized, the next step is to strengthen the actual ecotourism offer around it. The main actions should include:

- Improving the quality and consistency of hiking and biking infrastructure in already used areas
- Linking local product sales more clearly to recreation routes, fairs, and outdoor events
- Strengthening interpretation of the urban-natural interface, green spaces, and surrounding landscapes
- Supporting small businesses that can serve outdoor visitors through cafés, product points, and recreation-linked services
- Integrating city-based cultural events and local product fairs more deliberately into ecotourism programming
- Introducing regular seasonal review of route condition, visitor use, and local participation

This is the phase where Vanadzor’s specific comparative advantage becomes clearer. The city is not trying to become a wilderness destination. Its strongest pathway is to develop as an urban-nature ecotourism hub where outdoor activity, events, and local products support each other.

Phase 3

For the period 2037–2040, the site may support selective strengthening of facilities and more formalized local arrangements, but only where earlier phases show that visitor use is growing in an orderly way and that local value is actually being retained. This later phase should not be treated as automatic scaling. Because the current financial outlook remains only low to medium, any additional

strengthening should be based on evidence from use, maintenance needs, and local participation. The most relevant actions may include:

- Improvement of small visitor-support functions within existing municipal or private spaces
- Selective upgrading of route-support infrastructure in the most used and stable outdoor areas
- Clearer maintenance arrangements for trail markers, visitor information, and recreation points
- Stronger links between city-based accommodation or hospitality and organized outdoor experiences
- Gradual formalization of benefit-sharing and service-coordination arrangements where tourism use becomes more regular

Financing, Costing and Investment Review

Financing should follow the same staged logic. In the early phase, public financing is essential because the main needs are route organization, signage, visitor information, and local coordination. These are enabling functions and are unlikely to be delivered adequately by private initiative alone. Private financing is also relevant, but its role should remain realistic: not large capital investment, but incremental improvements by small businesses, recreation operators, cafés, local product sellers, and other service actors connected to the outdoor-use economy. The absence of PPP in the current package is important and should be respected. At this stage, Vanadzor does not yet have the kind of structured tourism project base that would justify PPP as a central financing model.

The likely financing mix for Vanadzor is therefore:

- Public financing for route organization, signage, mapping, visitor information, and municipal coordination
- Donor or project-based financing for interpretation, pilot ecotourism tools, training, and low-impact recreation planning
- Private financing for small recreation-linked services, product sales, café integration, and incremental service improvements

The revenue and investment logic should remain aligned with the current scale and structure of the destination. In the initial phase, locally delivered products and small recreation-linked services represent more realistic direct revenue channels than entry fees or a broad formalized tourism-service economy. Hiking and biking can generate additional visitor activity, but direct local income is initially more likely to arise through local-product fairs, food and café sales, recreation-point purchases, guided or organized activities and event-related spending. As the ecotourism system becomes more structured, service-based revenue opportunities may expand, but these should be demonstrated through actual use rather than assumed in advance. Precise investment amounts should likewise be established progressively, once routes and investment objects have been validated and their technical scope, quantities, implementation requirements and maintenance responsibilities are sufficiently defined. The sequencing principle is therefore to first make Vanadzor's outdoor-use system visible, safe

and understandable, then connect it more effectively with city-based products and services, and subsequently strengthen facilities and local arrangements where demonstrated demand and participation justify further investment.

Investment review and scaling should be based on observed performance rather than a predetermined long-term visitor-growth scenario. Regional Lori tourism statistics provide useful market context but do not measure Vanadzor-specific ecotourism activity, and the available recovery series is too short to support a defensible projection to 2040. No long-range Vanadzor visitor-growth forecast is therefore adopted. Progression between implementation phases and decisions on additional investment should instead draw on the Year 1 site and product baseline and subsequent evidence on route and product use, visitor demand, local-product and service uptake, environmental and safety performance, provider participation and maintenance requirements. This approach allows successful activities to be strengthened progressively while investments that lack sufficient demand, management capacity or demonstrated local benefit can be adjusted or deferred.

15. Final Site Classification and Conclusions

Vanadzor is classified as suitable for controlled, city-based ecotourism development, with visitor and service functions concentrated in the urban base and verified lower-risk parts of the surrounding urban-natural landscape. This conclusion consolidates the baseline, attraction, zoning, product, infrastructure, governance, environmental, monitoring and investment assessments and replaces the preliminary eligibility judgement previously presented near the beginning of the Plan.

The classification is supported by an accessible and distinctive urban-nature offer. Vanadzor's city services, Botanical Garden, Boo Mountain Bike Park, surrounding hiking and cycling routes, cultural and event life, local food and products and wider Lori connections can form one practical visitor system. The destination's advantage is not a wilderness image, but the ability to combine a manageable outdoor activity with interpretation, city hospitality, cultural participation and an optional overnight stay.

The classification does not authorize open use of all surrounding natural areas. Forest operations, slope and erosion risk, fire and severe-weather restrictions, route conflicts, Botanical Garden management requirements and unverified access or sensitive features require site-specific approval. Every promoted route or product must identify the land or site manager, legal access, operating season, safety and environmental conditions, responsible operator, emergency arrangements and maintenance owner. Active work areas, closed or unstable sections and environmentally sensitive locations should remain outside promotion.

The planning conclusion is a phased urban-nature hub model. The first phase should validate the attraction and route register, establish forest-compatibility and visitor baselines, prepare the Botanical Garden visitor product, improve trailheads, wayfinding, information and booking functions, organize service providers and test a limited set of hiking, cycling, garden and industrial-to-green experiences. Later consolidation and facility upgrading should proceed only where monitoring confirms safe shared use, acceptable route and garden condition, visitor demand, overnight conversion, local service participation and maintenance capacity. Vanadzor can strengthen its role as Lori's accessible base for nature-linked visits, but growth should follow demonstrated use and management readiness rather than new construction alone.

Annex 1: Ecotourism Assessment Tool

The following table presents the completed ecotourism assessment for the site, forming the basis for the management plan.

Component	Field / Criteria	Input / Selection	Notes / Logic
Screening & Eligibility	Critical habitat overlap	☐ Yes ☒ No	
	Endangered species presence	☒ Yes ☐ No	Medium importance
	Land ownership unclear	☐ Yes ☒ No	
	Community opposition	☐ Yes ☒ No	
	Climate risks (fire, landslide, drought)	☒ Yes ☐ No	
	Access constraints	☐ Yes ☒ No	If multiple critical risks are present, the site requires controlled or restricted ecotourism development, subject to strict management measures.
Site Identification & Planning Context	Site name	Vanadzor Community	
	Marz / Municipality	Lori/Vanadzor	
	Coordinates / GIS reference	Latitude: 40.8128° N Longitude: 44.4883° E	
	Legal status	☐ Protected Area ☐ Emerald Site ☒ Community Land ☐ Other	
	Link to existing plans	☐ PA Management Plan ☒ Community Development Plan ☐ Tourism Strategy	
Ecological & Conservation Profile	Ecosystem type	☒ Forest ☐ Grassland ☐ Wetland ☐ Alpine ☒ Mixed	Urban-natural interface
	Key habitats	Forest patches, mountain slopes	
	Species of concern	No route/site flora-fauna baseline; establish Botanical Garden and selected-route inventory before wildlife claims	
	Conservation sensitivity	☐ Low ☒ Medium ☐ High	Interim community-scale category; map site-specific sensitivity and closure/control conditions for each product.
	Population ~	87.7 thousand (community, 1 January 2025)	
	Main livelihoods	☒ Agriculture	

Component	Field / Criteria	Input / Selection	Notes / Logic
Socio-Economic & Community Context		☐ Livestock ☒ Forestry ☒ Tourism ☒ Services ☒ Industry	
	NTFPs present	☒ Honey ☒ Herbs ☒ Mushrooms ☒ Berries ☐ Other	
	Cultural assets	Urban culture, events	Vanadzor has a distinct urban cultural identity shaped by its industrial past and strong artistic traditions, with key institutions such as the Hovhannes Abelyan Drama Theatre, Fine Arts Museum, and multiple music ensembles forming the core of the city's cultural life. The city is also recognized as a center of Armenian alternative and rock music.
	Community willingness	☐ Low ☐ Medium ☒ High	
Tourism Assets & Baseline Use	Natural attractions	Vanadzor Botanical Garden; Boo Mountain biking; surrounding forest/slope landscapes and verified urban-edge routes	Named attraction inventory and maps are provided; exact points/routes require field/GIS validation.
	Cultural attractions	Local life, Events	Vanadzor hosts cultural events and festivals, particularly during summer, including music concerts, local product fairs, and regional festivals (e.g., FESTIVAR, storytelling and nearby Lori festivals such as the Tumanyan Festival), which combine live performances, crafts, gastronomy, and community participation.
	Existing activities	☒ Hiking ☒ Biking ☐ Camping ☐ Guided tours ☐ None	
	Visitor flow	☒ Low ☒ Medium ☐ High	Unmeasured planning classification; establish route/garden, day/overnight, booking and provider baseline in Year 1.
	Accessibility	☒ Easy ☐ Moderate	Destination access is favorable; each route/site needs legal, seasonal, hazard and emergency-access validation.

Component	Field / Criteria	Input / Selection	Notes / Logic
		☐ Difficult	
Suitability Assessment & Zoning	Ecological sensitivity	☐ Low ☒ Medium ☐ High	
	Accessibility	☐ Good ☒ Moderate ☐ Poor	
	Tourism demand	☐ Low ☒ Medium ☐ High	Existing but unquantified market; product pilots and Year 1 baseline required before scaling.
	Zone classification	☐ Strict Conservation Zone ☒ Controlled Ecotourism Zone ☐ Sustainable Development Zone	Map city-service/green gateways, controlled-use routes and exclusion/closure layers with competent managers.
Ecotourism Product Development	Hiking routes	☒ Yes ☐ No	
	Wildlife observation	☒ Yes ☐ No	Botanical Garden and selected urban-green/forest-edge interpretation only after science and management validation.
	Agro-ecotourism	☒ Yes ☐ No	Community participation required
	Cultural landscape tourism	☒ Yes ☐ No	
	NTFP-based experiences	☒ Yes ☐ No	
Infrastructure & Service Planning	Trails	☒ Yes ☐ No	
	Signage	☐ Yes ☒ No	
	Visitor centers	☐ Yes ☒ No	Use an existing space for information/booking unless demand and operating evidence justify another object.
	Accommodation	☐ Yes ☒ No	Link existing accommodation to products; survey capacity, price, occupancy, accessibility and participation.
Governance & Institutional Arrangements	Protected Area Authority role	☐ Assigned	Competent forest unit and Botanical Garden/site managers: route/site approval, closures and ecological oversight.
	Municipality role	☒ Assigned	Vanadzor Municipality: convene platform, integrate public/service actions, route register and implementation tracking.
	Community groups role	☐ Assigned	Community/user groups: route stewardship feedback, local services, inclusion and benefit channels.
	Private sector role	☒ Assigned	Providers: operate bookable services, comply with rules, report data/incidents and support maintenance.
	NGO role	☒ Assigned	
	Co-management agreement	☐ Yes ☒ No	
	Revenue-sharing agreement	☐ Yes ☒ No	
	Public-private partnership	☐ Yes ☒ No	

Component	Field / Criteria	Input / Selection	Notes / Logic
Visitor Management System	Visitor limits	☐ Yes ☒ No	No community-wide quota before baseline; set route/product limits only where evidence or manager conditions require.
	Seasonal restrictions	☒ Yes ☐ No	Seasonal route/garden status for weather, slope, fire, forestry work and maintenance.
	Guided-only access	☐ Yes ☒ No	Guided use for specified biodiversity, safety or management conditions; approved lower-risk self-guided use remains possible.
	Zoning enforcement	☐ Yes ☒ No	
	Max visitors per day	N/A	
	Max group size	N/A	
Benefit Sharing & Local Economy	Local employment	☒ Yes ☐ No	
	Local product sales	☒ Yes ☐ No	
	Community revenue share	☐ Yes ☒ No	
	Women / youth inclusion	☒ Yes ☐ No	
Environmental & Social Safeguards	Biodiversity disturbance risk	☒ Low ☒ Medium ☐ High	
	Community impact risk	☒ Low ☒ Medium ☐ High	
	Cultural heritage risk	☒ Low ☐ Medium ☐ High	
Climate Resilience	Drought risk	☒ Low ☐ Medium ☐ High	
	Fire risk	☒ Low ☐ Medium ☐ High	
	Landslide risk	☐ Low ☒ Medium ☐ High	
Monitoring Framework	Visitor numbers	Baseline: not available / Initial target: Year 1 route, garden, booking and day/overnight baseline / Frequency: monthly in season; annual summary	No data on Vanadzor exists
	Local income	Baseline: not available / Initial target: Year 1 local-provider, spending and product-sales baseline / Frequency: six-monthly/annual	
	Biodiversity condition	Baseline: Year 1 garden and selected route condition points / Direction: no net tourism-related deterioration / Frequency: pre-/post-season	
	Estimated investment	To be determined after route/site validation, design,	

Component	Field / Criteria	Input / Selection	Notes / Logic
Investment & Financial Structuring		quantities and operating/maintenance plans	
	Financing type	☒ Public ☐ PPP ☒ Private	
	Revenue sources	☐ Entry fees ☐ Services ☒ Products	
	Financial viability	☒ Low ☒ Medium ☐ High	
Implementation Plan	Action	Validate attractions/routes/zones; launch approved Botanical, biking, hiking and linked-route pilots; install justified infrastructure; monitor and maintain	
	Responsible	Vanadzor Municipality with Lori DMO, competent forest unit, Botanical Garden/site managers, providers and technical partners	
	Timeline	Year 1 baseline/validation; Years 1–3 pilots and basic readiness; later scaling only after evidence and approvals	

Source: Authors' elaboration.

Annex 2: Stakeholders and Consultation Status

The available meeting record identifies the Vanadzor-relevant persons below. Contact details are retained in project records and are not repeated here. The separate implementation table lists organizations whose participation is required; they are not described as consulted unless the record confirms it. Direct consultation with the competent Vanadzor Forest Economy/forest-management unit and Botanical Garden management is not evidenced and remains an action before product approval.

Name	Organization / role recorded	Relevance	Status
Taron Torosyan	Vanadzor Municipality	Municipal coordination, public space, access and local implementation	Consulted / meeting participant
Kristine Hovsepyan	Lori DMO	Destination packaging, regional linkage and tourism coordination	Consulted / meeting participant

Required Implementation Stakeholders and Consultation Status		
Stakeholder	Expected role	Evidence / next action
Vanadzor Municipality	Convene package, coordinate public/service/green-gateway actions and track implementation	Representative consulted; designate coordinator and annual work plan
Lori DMO	Approved product directory, booking/referral, market feedback and Lori route coordination	Representative consulted; agree operating/data method
Competent Vanadzor Forest Economy / forest-management unit	Validate forest routes, forestry-work interface, closures, fire/road/habitat conditions and monitoring	Direct consultation not evidenced — engage formally before route approval and confirm official unit title/coverage
Vanadzor Botanical Garden management	Approve biodiversity product, paths, visitor rules, facilities, monitoring and maintenance	Direct consultation not evidenced — complete management and biodiversity review
Boo Mountain Bike Park and other guide, transport, accommodation, food, culture and product providers	Operate bookable products, visitor briefing, data, safety and maintenance commitments	Map/verify offer and record written commitments
Community/user groups, women/youth, NGO/research, accessibility and emergency actors	Route/user feedback, inclusion, science, training, accessibility and emergency readiness	Hold product-level consultations and define terms of reference

Source: Authors' elaboration.

Annex 3: Summary SWOT Analysis for Ecotourism Development in Vanadzor Community

This concise matrix is a planning summary, not a separate full SWOT study. “Verified” denotes information supported by project materials reviewed for this revision; “Indicative” denotes a planning conclusion that still requires site, route, market or baseline validation.

STRENGTHS • [Verified] Vanadzor is an accessible Lori service centre with an urban base that can support short nature visits and overnight packages. • [Verified] Hiking, biking and Boo Mountain Bike Park provide an existing active-recreation anchor rather than a purely conceptual product. • [Verified] Vanadzor Botanical Garden, cultural institutions, events and surrounding forest/slope landscapes create an urban-nature-cultural combination. • [Verified] Vanadzor Municipality and Lori DMO representatives participated in the recorded stakeholder meeting.	WEAKNESSES • [Verified] No verified site/route visitor, overnight-stay, occupancy, expenditure, price or local-income baseline is available. • [Verified] Project maps show boundaries and attraction categories but not named points, approved routes, zoning, hazards or service links. • [Verified] Direct consultation with the competent Vanadzor forest-management unit is not evidenced in the available meeting records. • [Indicative] Outdoor, botanical, cultural, hospitality and event assets are not yet organized through one booking, route, maintenance and monitoring system.
OPPORTUNITIES • [Indicative] A Botanical Garden biodiversity walk and urban-green route can give Vanadzor a clear, accessible nature product after inventory and management approval. • [Indicative] One-day, overnight and multi-community Lori packages can connect biking/hiking with culture, food, Tumanyan and Alaverdi and increase length of stay. • [Indicative] An industrial-to-green interpretation route can treat industrial form as a transition story while directing visitors toward green and cultural assets. • [Indicative] Local guides, bike/transport services, cafés, accommodation, events and traceable local products can capture more visitor spending.	THREATS • [Verified] Landslide, erosion, severe-weather and route-condition risks can affect surrounding slopes and access. • [Verified/Indicative] Tourism routes may conflict with forestry work, forest roads, fire restrictions or other land uses unless reviewed seasonally. • [Verified] Informal route spread, litter, fire, off-road vehicle use and poorly located small infrastructure can degrade the urban-natural edge. • [Indicative] Promotion before route, Botanical Garden, zoning, operator and maintenance validation could create unsafe or disappointing visits.

Source: Authors' elaboration.