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ARMENIA

RECOMMENDATIONS FOR ECOTOURISM DEVELOPMENT PLANNING IN THE VARDENIS COMMUNITY



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Recommendations for Ecotourism Development Planning in the Vardenis 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.

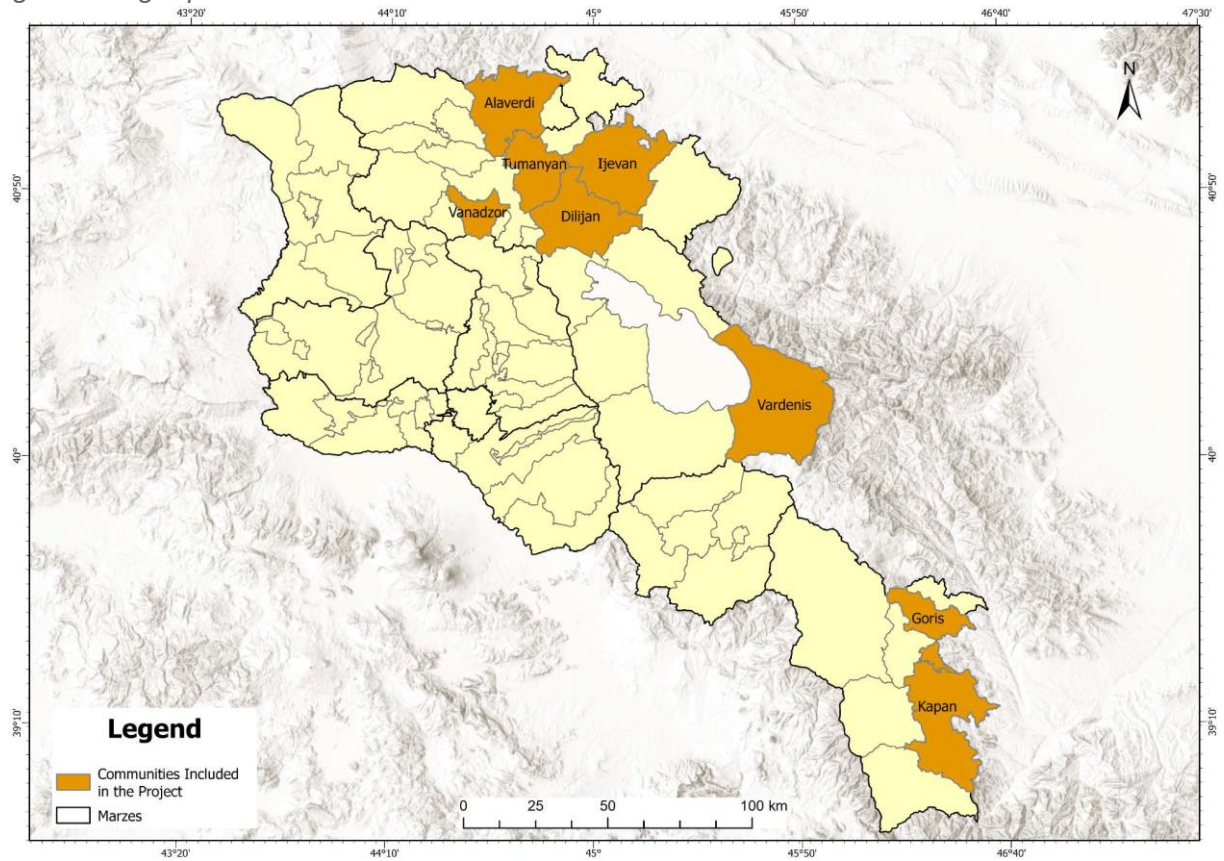
The purpose of this plan is to support decision-making on whether and how ecotourism can be developed in a controlled and sustainable manner. It ensures that tourism activities are aligned with conservation requirements, particularly in areas with sensitive ecosystems or species of concern, while also 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.

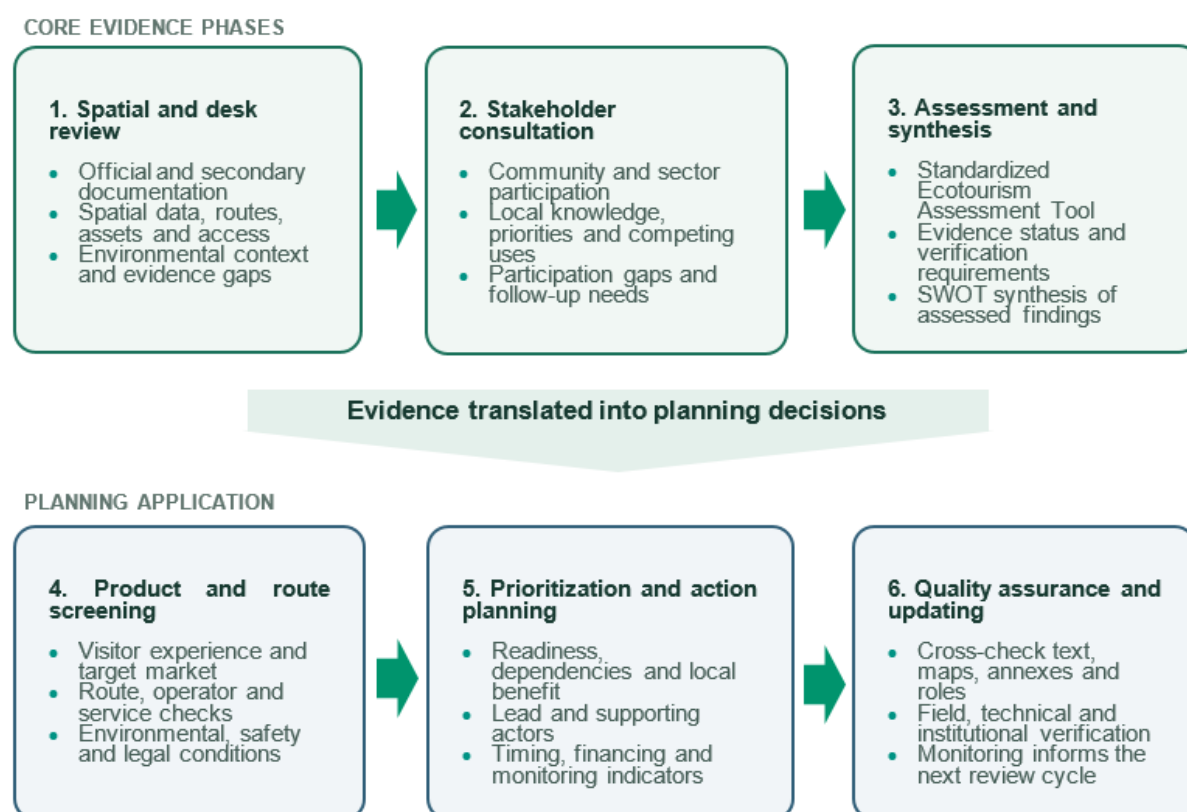
2. Methodological Approach

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.

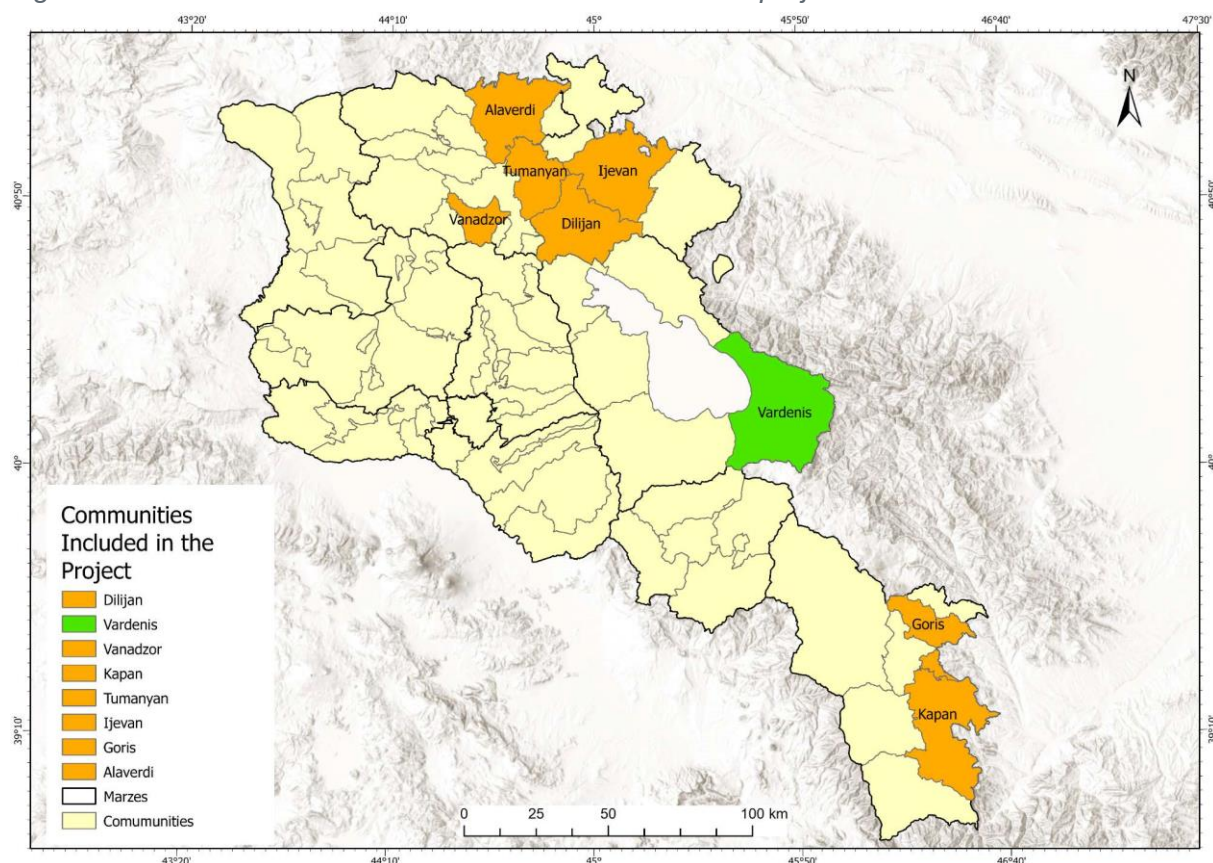
Additional evidence limitations:

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 Vardenis is located in Gegharkunik marz in eastern Armenia and represents the project's eastern pilot community. Its geographic setting is defined by a high-altitude mountain landscape and by its position in the broader Lake Sevan and eastern upland context.

Figure 3. Vardenis and other communities included in the project



Source: REC Caucasus.

3.1 Location and Context

The Vardenis community is located in the eastern part of Armenia, within Gegharkunik marz, in the Lake Sevan basin. The area lies at high altitude, with the town of Vardenis situated at approximately 2,000 meters above sea level. The surrounding landscape includes mountainous terrain and open highland areas connected to the broader Sevan ecological system.

Accessibility to the area is moderate, with connection to regional road networks, although access to specific natural sites may require improvement or guided movement. The territory includes a mix of open-use land and environmentally sensitive zones, which requires spatial differentiation in planning.

The area is influenced by environmental considerations linked to the Lake Sevan basin, as well as local development priorities at community level. Tourism activities are present at a limited scale but are not yet structured within a defined management framework.

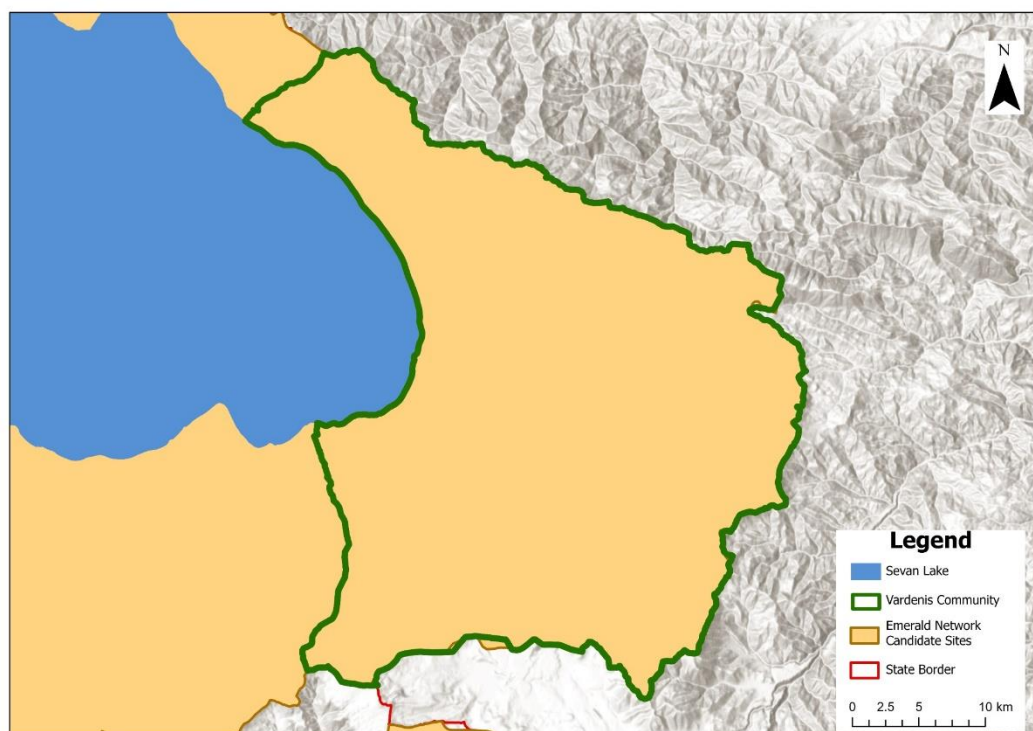
3.2 Ecological Characteristics

The ecological profile of Vardenis is defined by high-altitude ecosystems, primarily consisting of grasslands and wetland areas, which are consistent with the dominant ecosystem types of Gegharkunik marz. At the regional level, these ecosystems include extensive alpine and meadow-steppe landscapes, along with smaller but ecologically important wetland areas.

The project map indicates extensive overlap between Vardenis Community and an Emerald Network candidate-site layer. This is a material planning condition, but the map does not itself confirm formal designation, legal zoning, qualifying habitats/species or permissions. Before route or product approval, the competent authority should confirm the current boundary/status and identify the features and locations that require avoidance, seasonal control, guided use or monitoring. Wider Lake Sevan basin information cannot be treated as a Vardenis-only species or wetland inventory.

Nature-based tourism potential therefore depends on a mapped, evidence-based compatibility review. No wetland, observation site, highland route or species encounter should be marketed until its exact location, access, ecological condition, visitor format and responsible manager have been verified.

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



Note: this map provides boundary context only. It does not show official legal zoning, qualifying habitats/species, named wetlands, approved visitor routes, mining-related land-use constraints, hazards, services or seasonal closures. Those layers require competent-authority, GIS and field validation.

Source: Project GIS layers, 2026.

3.3 Socio-Economic Context

Vardenis town had 12.6 thousand residents at the beginning of 2025 according to Armstat. The package covers the consolidated community, not only the town; the current draft's town and community

figures are inconsistent. The official consolidated-community population and settlement breakdown should be inserted from the same reference year before demographic or market conclusions are used.

'Limited and not formally structured' means that the community does not yet have a verified and market-ready attraction/route inventory, approved bookable ecotourism products, coordinated visitor information and marketing, route-status and maintenance arrangements, or a local visitor/overnight/spending baseline. 'Local capacities' must be tested rather than assumed: municipal coordination; attraction and route management; guides; legal transport; accommodation and food; interpretation; booking/referral; maintenance; environmental review; emergency readiness; and data collection. Agriculture, livestock and local food are potential inputs, but only providers that meet participation, hygiene, safety, origin and visitor-readiness conditions form part of the actual capacity. Ecotourism is a complement to existing livelihoods, not a replacement for them.

4. Stakeholder Insights and Local Priorities

Stakeholder inputs collected during consultations provide additional context to the assessment results and help identify practical directions for ecotourism development in Vardenis. The insights are consistent with the conditions reflected in the assessment tool and highlight both opportunities and constraints at the local level. The area surrounding Vardenis reflects strong community interest in balancing livelihood needs with environmental conservation, particularly in relation to ecosystems connected to Lake Sevan. Key local priorities include diversification of income through eco-tourism, preservation of cultural heritage, and improved infrastructure and services, alongside the need for inclusive decision-making and capacity building.

Stakeholders emphasized the potential of the area's natural landscapes, particularly open highland areas and proximity to Lake Sevan, as a basis for developing nature-based tourism. Existing informal or small-scale activities indicate that there is already some level of interaction with visitors, although not organized or managed systematically. There is interest in developing tourism products that are closely linked to local livelihoods. This includes opportunities related to agricultural and livestock-based experiences, as well as the use of local products. Such approaches are seen as more realistic compared to large-scale tourism development and are considered compatible with existing economic practices. The consultations also indicate openness to developing guided activities, particularly those that do not require significant infrastructure. This aligns with the ecological sensitivity identified in the assessment and supports a model based on low-impact tourism.

The main constraints are broader than trails and signage. Vardenis is not yet recognized through a clear visitor proposition; attractions are insufficiently explored and named; coordinated marketing is absent; and the area's external image is influenced by association with mining. The plan should neither conceal nor promote unsafe or operational mining areas. It should screen mining-related land-use, access, visual, safety and interpretation issues site by site, while building a separate evidence-based identity around the eastern Lake Sevan setting, highland cultural landscapes, local food and community services. Infrastructure follows this positioning and attraction-readiness work, not the reverse.

To address these evidence and readiness gaps, each potential attraction should first pass a structured discovery and validation process before it is incorporated into an ecotourism product. Table 1 presents the proposed “Gate 1” screening mechanism, which verifies the identity, legal and management status, visitor value, access and safety conditions, ecological and land-use compatibility, service readiness, and minimum investment requirements of each candidate site. Only attractions that complete this screening should proceed to route design, product development, promotion, or physical investment.

Table 1. GATE 1: Attraction discovery and readiness

Required field	Decision question	Output before product design
Identity and coordinates	What is the official/local name and exact point/area?	Numbered GIS feature with photograph and date
Ownership / manager / legal status	Who can authorize visitor use and what restrictions apply?	Recorded manager, consent path and status evidence
Visitor value and distinctiveness	What can a visitor see, learn or do that supports the Vardenis position?	Short interpretation and market-fit statement
Access and safety	Is access legal, seasonal and suitable for the proposed group/vehicle?	Route sheet, hazards, emergency access and closure alternative

Required field	Decision question	Output before product design
Ecology and land-use compatibility	Are there candidate-site, wetland, species, grazing, mining or other conflicts?	Avoidance/control/monitoring decision by competent actors
Service and operator readiness	Who will guide, transfer, feed, host, maintain and record use?	Named operator/provider chain and written responsibilities
Investment and maintenance	What minimum improvement is justified and who maintains it?	Costed object only after evidence and operating plan

Source: Authors' elaboration.

5. Tourism Baseline

No developed birdwatching site, verified hiking-route inventory or measured ‘moderate tourism activity’ within Vardenis Community is evidenced by the available materials. The current baseline is therefore ‘not quantified and not product-verified.’ Year 1 should record attraction/route visits, origin, day/overnight status, length of stay, accommodation/meal use, booking source, visitor spending and product feedback through one common method.

The detailed project map displays numerous monasteries, caves, historical places, monuments and natural-monument symbols in and around the community, but the symbols are not named or numbered. This is evidence of an attraction-discovery workload, not a completed attraction inventory. References to sites outside Vardenis Community should not be presented as community attractions; they may be used only as clearly identified linked-route elements after distance, operator and benefit logic are confirmed.

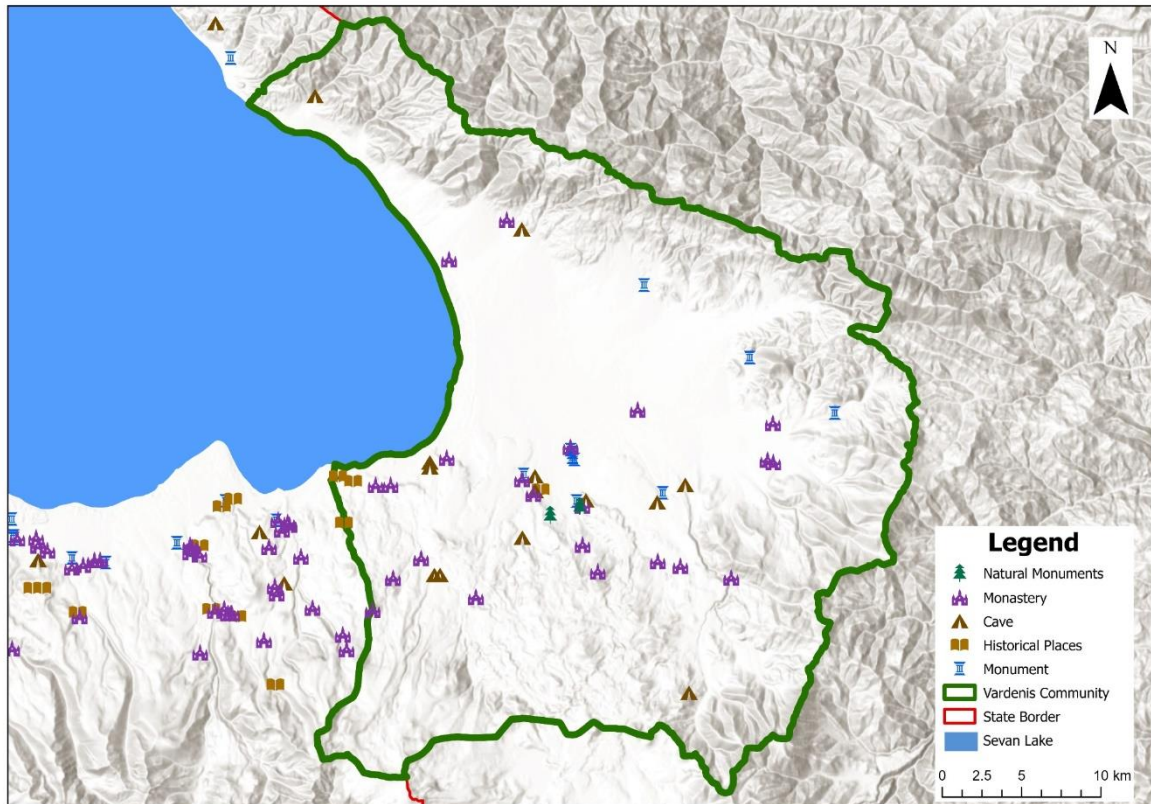
Based on the current GIS evidence and the incomplete attraction inventory, the priority clusters presented in Table 2 should be understood as candidate product areas. The table identifies the potential visitor role of each cluster and, importantly, the evidence that must still be collected before it can be incorporated into an approved Vardenis ecotourism offer. This approach allows the Plan to distinguish between mapped tourism potential and attractions that are sufficiently verified, accessible and manageable for visitor use.

Table 2. Priority attractions

Indicative cluster	Possible visitor role	Evidence needed before inclusion
Eastern Lake Sevan access and landscape	Gateway/view/shore-linked add-on to an inland Vardenis experience	Exact public access, land/status, sanitation, season, safety, environmental condition and differentiation from established shore stops
Vardenis town service and interpretation base	Information/booking, community history, food, guide and transport assembly point	Existing-space host, opening hours, providers, accessible services, visitor information and operating budget
Highland landscapes and viewpoints	Guided walking, photography and landscape interpretation	Named/numbered points; legal route; weather, slope, grazing, mining/land-use and emergency checks
Village cultural-landscape and religious/heritage points	Short circuit linking architecture, local history and community services	Official name/status, manager, access, conservation condition, visitor readiness and nearby meal/product provider
Wetland or water-related observation candidates	Small guided ecological interpretation or bird observation	Exact site and boundary; species/season review; access, disturbance distance, group/guide conditions and no-go areas
Caves and natural monuments shown by category	Specialist or guided add-on only where safe and authorized	Official identity/status, structural/access safety, ecological/heritage sensitivity, operator competence and rescue plan
Nearby non-community attractions	Regional itinerary extension rather than a Vardenis asset	Clearly state location; validate travel time, handover, local-spending benefit and partner agreement

Source: Authors' elaboration.

Figure 5. Indicative attraction categories in and around Vardenis Community



Note: Symbols outside the green boundary are nearby regional attractions, not Vardenis Community assets. The map does not name or number points, identify wetlands, show approved routes or provide readiness, ownership, ecology, safety, service or mining-interface information. Gate 1 must convert relevant symbols into a verified register.

Source: Project GIS layers, 2026

Analysis of available official and user-generated spatial data identifies a dispersed network of local, highland and regional alignments in and around Vardenis Community. Based on this information, four groups emerge: short town and nearby-site routes; the Artanish–Mets Masrik lakeside connection; northern mountain routes around Areguni, Artanish, Divants and Shshasar; and southern highland routes around Tsarasar and Khachaqar. Recorded alignments range from approximately 3 km to 56 km, but several are duplicate, alternative or seasonal traces, while some extend beyond the community or towards sensitive border areas. The mapped network is therefore an initial spatial inventory.

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



Note: Route alignments are indicative and require field, land-management and competent-authority validation before publication or promotion.

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

The mapped network supports a phased product structure rather than one continuous route offer. Short Vardenis-area alignments can support half-day landscape, heritage and local-food experiences. The Artanish–Mets Masrik corridor and northern mountain routes are regional extensions requiring inter-community coordination. Tsarasar–Khachaqar and other southern highland alignments require trained guides, seasonal controls, tested access and emergency arrangements. Any alignment approaching the state border or another restricted area must remain outside the promoted network unless the competent authorities explicitly confirm access and operating conditions.

The mapped network is not immediately visitor-ready. Duplicate and seasonal alternatives must first be consolidated into unique route records. Each selected route should then be verified for start and end points, distance and elevation, surface condition, legal access, land and site manager, biodiversity sensitivity, grazing and mining interfaces, weather and snow exposure, border or security restrictions, emergency access, signage, operator and maintenance responsibility. Initial development should prioritize short and medium-length routes connected to Vardenis settlements and existing services.

The area is characterized by a high-altitude landscape and its proximity to the eastern shoreline of Lake Sevan, which serves as the main regional attraction, particularly during the summer season. Recreational use is concentrated along accessible shoreline areas, while the surrounding territory consists of open highland grasslands and mountainous terrain, offering expansive views and largely undisturbed natural environments. These landscapes provide a strong foundation for nature-based tourism, especially in areas with lower ecological sensitivity.

The current materials do not identify a named wetland or developed birdwatching location within the consolidated community. ‘Wetland and water-related habitat’ is therefore a broad screening category only. A birdwatching or ecological-observation pilot may proceed only after a biodiversity specialist and competent manager confirm the exact site, seasonal presence, access, observation distance,

group/guide conditions, no-go areas and monitoring points. Promotion must not guarantee species encounters.

Tourism activities in the Vardenis area are currently limited and largely informal. The most relevant existing and potential activities include:

- Hiking and walking routes across highland and open landscape areas
- Recreational use of Lake Sevan, including swimming and lakeside visits during the summer period
- Nature observation activities in grassland and wetland ecosystems, including birdwatching, photography, and guided ecological walks
- Agro-ecotourism experiences linked to livestock, local food products, and rural lifestyle

Community-level visitor flow cannot be classified reliably as low, moderate or high because no counting or provider dataset is available. The Year 1 baseline should combine route/attraction logs, accommodation records, organized-group records, booking/referral data and brief visitor surveys. Environmental pressure must be measured at selected points; low recorded tourism does not prove low risk at a sensitive or informal-use site.

Access to Vardenis town does not establish access readiness for attractions. Every proposed route needs a sheet recording legal road/trail, manager, distance and tested travel time, surface and season, vehicle/transfer or walking mode, weather/snow conditions, grazing/mining/other land-use interfaces, hazard points, mobile/emergency access, parking/trailhead and closure alternative. A 4x4 or minibus service is acceptable only on a validated existing legal road; recreational cross-country driving is excluded.

From a planning perspective, current accessibility conditions are compatible with a controlled ecotourism approach, where visitor movement is directed through designated paths and entry points rather than unrestricted access.

6. Suitability Assessment and Zoning

The suitability assessment indicates that Vardenis can support ecotourism development, but only under a controlled model. This conclusion is shaped by the combination of high ecological sensitivity, tourism relevance within the wider Lake Sevan basin, and mixed accessibility conditions across the territory.

The supplied project map indicates a broad Emerald Network candidate-site context, but the present materials do not provide an official Vardenis habitat/species map or legal tourism zoning. Wider Sevan basin species totals and National Park information must not be treated as a Vardenis-only inventory or proof that a particular route is suitable. The operational decision is site-specific: verify the candidate-site feature, other legal status, land manager and ecological sensitivity, then assign avoidance, seasonal closure, guided/controlled use or regular use.

The two project maps are contextual inputs and do not constitute zoning. A working GIS layer should distinguish: (1) town/village service and information nodes; (2) validated regular-use roads and lower-risk cultural/service points; (3) controlled-use highland, observation and heritage routes with group, guide, season or vehicle conditions; and (4) permanent or temporary no-go/closure areas for sensitive habitats, unsafe terrain, active mining or other incompatible land use, severe weather, fire, maintenance or lack of permission.

Vardenis should not ask visitors to ignore better-known Lake Sevan attractions nearer the main routes. Its offer must work as an extension: 'eastern Sevan plus Vardenis highlands and community life.' The market test should determine whether a verified highland/cultural-landscape activity, local meal and community encounter add enough value for visitors to travel farther, stay longer or buy a second service. If the tested offer does not convert, promotion and investment should be redesigned rather than justified by Lake Sevan proximity alone.

The Sustainable Development Zone is not selected in the assessment table, and this is an important planning result. It means that, at this stage, the site does not support broader tourism development based on concentrated infrastructure, unrestricted access, or intensive visitor use. In other words, Vardenis is suitable for conservation-oriented and carefully managed ecotourism, but not for wider tourism expansion. Overall, the zoning outcome confirms that tourism in Vardenis should proceed only through a precautionary and controlled approach. The site is suitable for low-impact ecotourism under clear spatial limits, with sensitive areas kept under strict protection and tourism activities directed only to locations where ecological risk can be managed.

7. Ecotourism Product Development

Initial target segments are domestic families and small groups seeking a quieter Lake Sevan extension; hikers and landscape photographers; educational groups; cultural-landscape visitors; diaspora/family groups; and selected international nature/culture visitors reached through regional operators. No segment size is known. Each pilot should test inquiries, bookings, travel origin, reason for choosing Vardenis, willingness to combine services, price response, day/overnight conversion and satisfaction before scaling.

Product development begins only after Gate 1 identifies attractions that are real, accessible, authorized, environmentally compatible and operable. The package identity is not generic 'Lake Sevan tourism'; it is a small-scale combination of the eastern lakeside setting, highland landscape, village/heritage clusters, local food and community services. Birdwatching, caves, wetlands and mining-related interpretation remain conditional specialist elements, not launch products, until their locations and conditions are verified.

Season and operating dates must be set product by product. Summer may support tested walking, landscape, community-food and eastern-shore-linked experiences, while spring and autumn remain conditional on route, weather, ecological and provider evidence. Birdwatching seasons cannot be assigned until a named site and species/season review are completed. Winter is not a launch season unless a separate product, access, safety, operator and market test confirms readiness. Every product needs a pre-season status check and a weather or closure alternative.

A practical product structure for Vardenis could be organized around short and medium-length experiences. One option is a half-day guided landscape route combining open highland views, ecological interpretation, and local food tasting. A second option is a one-day rural ecotourism experience that combines walking, observation, and interaction with local food or livestock-related practices. A third option, where conditions allow, is a Sevan-linked excursion model in which visitors combine eastern shore recreation with a guided inland route in the Vardenis area. These product types remain realistic because they do not require intensive new infrastructure and can be developed gradually through route definition, basic signage, trained local guides, and stronger coordination with local service providers. An optional itinerary should therefore remain simple and consistent with current capacities. A one-day pilot itinerary could include arrival in Vardenis, a guided walk in a designated open landscape area, a short ecological interpretation component focused on local habitats and conservation-sensitive use, and a community-based meal using local products. This kind of itinerary matches the current baseline better than a complex multi-day package and provides a practical entry point for future product refinement.

Once individual attractions and routes have passed the readiness screening, they can be combined into practical visitor products. Table 3 translates the product directions identified above into a focused set of ecotourism and supporting service tools for Vardenis. For each product, it defines the intended visitor format and market, the local value chain that could benefit from visitor spending, and the minimum environmental, operational, safety and market conditions that should be satisfied before launch. The table therefore represents a product-development framework rather than a list of activities proposed for immediate implementation.

Table 3. Priority Ecotourism Product and Service Tools

Product / service tool	Format and market	Local value chain	Launch conditions
Eastern Sevan + Vardenis Highlands day	Full-day extension for domestic/international Sevan visitors: verified viewpoint/walk + community meal + cultural stop	Guide, legal transport, meal, heritage/site contribution and product purchase	Gate 1 register; tested travel time; safe legal route; market test; weather alternative; clear distinction from roadside Sevan stops
Highland landscape walk and photography	Two- to five-hour guided route for hikers, photographers and educational groups	Guide, transfer, meal and optional overnight referral	Named approved route; grazing/mining/weather/safety check; group/season rule; emergency and maintenance owner
Village cultural-landscape and food circuit	Half/full-day small-group experience combining verified heritage, settlement story and hosted food	Local host/guide, food, craft/agricultural product and transport	Site and host consent; heritage accuracy; hygiene; authentic local origin; accessibility and booking arrangements
Local food and pastoral-landscape experience	Scheduled tasting/demonstration/landscape interpretation, not staged animal handling	Farm/household, food provider, guide and product sales	Provider willingness; hygiene/food safety; animal welfare; season; visitor boundary; price and cancellation rules
Conditional wetland/bird observation pilot	Small guided specialist/educational visit only after site validation	Qualified guide, local transfer, meal/stay and conservation messaging	Named site; biodiversity and disturbance review; competent-manager approval; seasonal/no-go rules; observation/condition log; no guaranteed encounter
Conditional legal-road trailhead transfer	Scheduled 4x4/minibus on an existing legal road followed by a guided walk; no recreational off-roading	Licensed transport/driver, guide, meal and optional stay	Fixed approved road/stops; vehicle, insurance and capacity checks; no cross-country, sensitive-site or incompatible land-use entry; weather/closure plan
Vardenis–Lake Sevan–Dilijan/Ijevan eastern Armenia extension	Optional three- to four-day sequence connecting approved Vardenis highland/community products with separately operated Dilijan and/or Ijevan nature products; not a same-day link	Operators, accommodation, meals, transport, guides and products in each participating community	Market test; actual long transfer times; operator handovers; distinct product logic; booking/cancellation; shared visitor rules; local-benefit tracking in each community

Source: Authors' elaboration.

8. Infrastructure and Service Needs

Infrastructure readiness cannot be concluded before the attraction and product decisions. The first investment object is the verified attraction/route/service layer, not a new building. Physical works are limited to approved products with demonstrated use, legal and environmental compatibility, a named operator and a funded maintenance owner.

The main infrastructure gaps relate to visitor orientation, route management, and service organization. The absence of marked ecotourism trails and consistent signage limits the ability to guide visitor movement, especially in highland and wetland areas where uncontrolled access may create pressure on sensitive habitats. In practical terms, this means that the first priority is not large investment, but the introduction of basic low-impact infrastructure: designated walking routes, trail markers, directional signs, and simple interpretation points in appropriate locations. These elements are necessary both for visitor experience and for environmental control.

A second gap concerns visitor services. The current tourism base does not indicate the presence of an organized visitor information point or interpretation center. For Vardenis, this does not necessarily require a large standalone building at the initial stage. A more realistic approach would be a small-scale information function integrated into an existing local facility, guesthouse, municipal space, or tourism service point. This would help provide route information, basic visitor guidance, and communication on ecological sensitivity without creating unnecessary infrastructure pressure.

The available evidence does not show whether accommodation is sufficient. Before overnight marketing or new construction, complete a provider census covering establishment name/status, rooms and beds, operating season, occupancy, prices, booking channel, water/heating/toilet conditions, food, accessibility, quality/safety, willingness to join packages and investment needs. If early pilot groups can be served through existing compliant capacity, improve visibility and package linkage first. If verified demand repeatedly exceeds suitable capacity, prepare a separate business and site case for upgrades or expansion. Day trips should not become the default simply because the capacity is unknown.

9. Governance and Institutional Arrangements

Vardenis Municipality should coordinate the local package, attraction/route register, public-space and service actions, provider platform, annual work plan and reporting. It should not approve protected-area, candidate-site, biodiversity, heritage, mining or other regulated matters outside its authority. Each site record must name the competent decision-maker and preserve statutory responsibilities.

Sevan National Park SNCO is a required long-term conservation and visitor-management partner for Lake Sevan basin linkages and for any proposed site or route within its legal competence. Its exact territorial/legal role in each Vardenis product must be confirmed rather than inferred from basin proximity. The Emerald Network candidate-site context also requires confirmation by the competent environmental authority. Cooperation should be formalized as an operating protocol, not described as co-management unless Armenian law and the responsible authorities establish such an arrangement.

The current draft names Aregouni Tourism Promotion NGO as a possible facilitation actor, but the available consultation record does not confirm its participation, current offer or mandate. It should therefore be contacted and recorded as verified, declined, unavailable or pending before any responsibility is assigned. The same rule applies to accommodation, food, guide, transport, farm/household, heritage and other providers: presence or mention does not establish capacity, consent or product readiness.

A proportionate delivery model uses written service and maintenance agreements rather than an assumed destination-scale public–private partnership. The Municipality coordinates and communicates; competent authorities or managers decide regulated site matters; providers operate and record services; community and land-use representatives identify conflicts and benefit links; and technical or civil-society partners support evidence, training and facilitation where their participation is confirmed. Any shared cost, income or maintenance arrangement requires a lawful written basis.

The protocol should begin with a memorandum or annual working arrangement, subject to each institution's authority. It does not transfer regulatory powers, imply that all of Vardenis lies within Sevan National Park, or create a revenue right without a separate lawful agreement.

The institutional arrangements described above require a simple and traceable operating mechanism if they are to function in practice. Table 4 therefore translates the proposed Municipality–conservation cooperation model into specific coordination procedures, clarifying the respective roles of Vardenis Municipality and Sevan National Park or other competent environmental authorities, as applicable. The protocol is intended to support route and product approval, seasonal status decisions, visitor information, monitoring, incident response and annual planning without transferring statutory powers or assuming institutional responsibilities that have not been formally confirmed.

Table 4. Vardenis Municipality–Sevan National Park Cooperation Protocol

Mechanism	Municipality role	Sevan National Park / competent environmental role	Joint output
Annual route and product review	Submit numbered sites/routes, operators, proposed season and public/service actions	Confirm legal competence, restrictions, ecological information and required approvals/technical reviews	Approved, conditional, rejected and pending register with reasons
Pre-season status meeting	Confirm roads, signs, providers, emergency contacts and visitor information	Confirm sensitive periods, closures, monitoring needs and conservation messages where relevant	Public route/product status and alternatives
Shared visitor information	Maintain municipal/online information, booking/referral and provider links	Provide accurate conservation/status language and change notices	One controlled information sheet per approved product
Monitoring and inspection	Collect visitors, bookings, local-value, complaints and infrastructure-condition data	Review ecological/visitor-condition indicators within competence and advise controls	Seasonal dashboard and action log
Incident and closure protocol	Notify operators/visitors, stop municipal promotion and activate alternative	Issue or communicate conservation/access decision within competence and reopening conditions	Dated closure, communication, inspection and reopening record
Annual improvement plan	Budget agreed public/service/maintenance actions and provider support	Identify conservation priorities and required technical inputs	Costed responsibilities, deadlines and funding sources

Source: Authors' elaboration.

10. Visitor Management System

The immediate visitor-management system is: (1) a numbered attraction and route register; (2) mapped legal status, access, candidate-site/wetland, grazing, mining/other land-use, hazard and closure layers; (3) product status with operator, season, group/vehicle/guide conditions and alternative; (4) booking/referral and pre-visit information; (5) activity-specific visitor rules; (6) signs only after approval; (7) route, visitor, provider, incident and condition logs; and (8) named maintenance, closure and emergency owners.

A core requirement is spatial control. Areas with high ecological sensitivity, especially wetland and water-related habitats, should not be treated as open visitor space. Access in such areas should remain highly restricted and only be allowed where this is compatible with conservation requirements. The main space for visitor use should therefore be the areas suitable for controlled ecotourism, where movement can be directed through clearly identified routes and observation points rather than through unrestricted access across the landscape.

Seasonal or temporary restrictions must be attached to a numbered site or route and a stated reason—ecological sensitivity, land-use compatibility, fire, severe weather, snow, unsafe access, maintenance or lack of authorization. Wider Lake Sevan practice is contextual only and does not create a Vardenis rule. The route-status register should identify who decides, the start and review date, the communication method, the alternative offered and the evidence required for reopening.

Visitor rules prohibit entry to closed/no-go areas, new informal shortcuts, litter, open fire where prohibited, disturbance or collection, cross-country vehicle use, unsafe mining/industrial-area access and interference with grazing or everyday land use. Guided use applies where ecology, heritage, route safety, manager approval or interpretation requires it; approved lower-risk cultural/service points may remain self-guided. Product-specific group or vehicle limits follow evidence and manager conditions rather than an invented community-wide quota.

Enforcement should rely on a combination of local coordination and conservation oversight. The municipality should play the main role in local organization, route management, and communication of visitor rules, while conservation-related institutions should provide guidance and control in environmentally sensitive areas. At this stage, enforcement is likely to depend less on formal control systems and more on visible route definition, signage, local supervision, and gradual establishment of practical rules that can realistically be applied. The most realistic starting model is therefore a staged visitor management system built around route definition, habitat-based and seasonal restrictions, and gradual strengthening of supervision through local guides, visitor information, and coordination between local and conservation actors. As tourism becomes more structured and site-level data become available, this system can be refined further through more specific thresholds and operational controls.

11. Local Economy and Benefit Sharing

Ecotourism should complement Vardenis's agriculture, livestock, food and service economy.

The present materials do not identify which households or businesses are willing and ready to participate, or how much visitor value is retained locally. The Year 1 provider census should record service, settlement, legal/quality status, season, capacity, price, booking method, accessibility, training or investment need and willingness to join a package.

The practical local value chain is guide, legal transport, accommodation, meal, heritage/site service, maintenance contribution and traceable local product sale. Honey, herbs, berries, dairy and other foods or products are included only after origin, legal and sustainable production or collection, hygiene, season, quantity and provider benefit are confirmed. Farm or pastoral experiences require host consent, animal welfare, visitor boundaries and a format that does not disrupt work or stage unsafe interaction.

Initial benefit sharing should use direct, transparent provider payments. Each product card lists the local payment points and each operator records whether visitors used them; the Municipality aggregates provider participation, transactions and indicative local visitor spending without publishing personal business data. Results should be reviewed by settlement and, where feasible, by women and youth participation. Any shared fee, community fund or revenue arrangement requires a lawful written basis, a stated purpose, collection and reporting rules, and agreement on maintenance or conservation use.

12. Environmental and Climate Considerations

The environmental baseline available for this package is community-scale and contextual. It confirms highland, water-related and Lake Sevan basin relevance but does not provide a verified Vardenis product-site habitat or species inventory. Wider basin or protected-area totals cannot be used as proof for a Vardenis route, observation point or marketing claim. Each proposed product therefore requires a named-site baseline proportionate to its risk, followed by avoidance, operating conditions and monitoring agreed with the competent manager or specialist.

Biodiversity risk cannot be rated only from low current visitor pressure. The decision must consider exposure and consequence at each proposed site. Relevant pathways are entry into wetland or water-related habitat; disturbance during sensitive seasons; off-route trampling and informal paths; noise, litter and fire; uncontrolled vehicles; collection or unverified species marketing; grazing and water-use conflict; and mining-related land-use or access interfaces. Wider Lake Sevan species records are contextual and cannot prove occurrence at a Vardenis product site.

Community impact risk is assessed as medium. This is consistent with the local economic structure, where agriculture and livestock remain dominant. Tourism does not currently create visible pressure, but future tourism growth could create tension if visitor movement interferes with grazing areas, local access routes, or everyday land use, or if benefits remain unevenly distributed. Mitigation therefore depends on keeping tourism small-scale, linking it directly to local services and products, and ensuring that tourism activity fits around existing land-use systems.

Cultural heritage risk is assessed as medium to high and should be treated carefully. In Vardenis, tourism is likely to develop through a combination of landscape, rural identity, and local cultural elements rather than through isolated attractions alone. This means that unmanaged tourism could affect not only biodiversity, but also the visual and functional integrity of the wider rural landscape.

Climate and weather controls should be operational rather than based on a single wider-basin statistic. Each route or product needs a seasonal access window, current weather/snow and fire-danger check, water and shade information where relevant, no-fire and waste rules, emergency contacts, a communication process for closure and an alternative activity. A warning, severe-weather forecast, unsafe road or route condition, unmanaged waste or elevated fire risk should trigger restriction or closure until the responsible actor records that reopening conditions are met.

Landslide risk is assessed as low. This means that it is not a major site-wide constraint and does not shape the overall ecotourism model. However, local terrain conditions should still be considered when selecting walking routes, viewpoints, or small infrastructure locations. In practice, this remains a route-planning issue rather than a broader environmental barrier. Overall, the environmental and climate implication for Vardenis is clear: ecotourism can proceed, but only if visitor use remains concentrated in lower-risk areas, sensitive habitats are kept outside the main tourism space, and tourism development relies on low-impact infrastructure, seasonal caution, and practical supervision. The most appropriate mitigation approach is preventive rather than corrective, with emphasis on avoiding damage before tourism pressure increases.

The environmental and climate risks identified above need to be translated into explicit operating controls rather than remain as general safeguards. Table 5 therefore links the principal risk pathways relevant to Vardenis with the minimum preventive measures required and the management response that should follow if conditions deteriorate, a conflict emerges, or a safety or environmental threshold is

breached. This risk–response logic is intended to support adaptive management at the level of individual routes and products, where actual site conditions can be verified and acted upon.

Table 5. Environmental, land-use and climate risk–response tool

Risk pathway	Required control	Trigger and management response
Wetland/water-related or sensitive-season disturbance	Named mapped site; specialist/manager review; route/observation distance; group/guide/season/no-go rules	Disturbance evidence, sensitive period or condition decline → suspend, close/reroute and reassess
Unverified bird/species promotion	Use only verified occurrence and approved interpretation; no guaranteed encounter	Incorrect/unverified claim → remove promotion, correct guide material and retrain
Off-route movement, trampling and vehicle use	Approved paths/roads/stops; no cross-country driving; briefing, marker and inspection owner	New informal track or breach → repair/block, correct operator, restrict or suspend
Grazing, water and community land-use conflict	Consult land users; define route, timing, visitor boundary and alternative	Complaint/conflict → pause affected product and revise timing/alignment
Mining-related access, safety or land-use interface	Map operational/restricted areas and legal access with competent actors; exclude unsafe/incompatible sites	Status change, warning or uncertainty → close/reroute and stop promotion
Fire, litter, severe weather and seasonal access	Pre-visit status; fire/waste code; weather/snow check; closure communication and emergency contacts	High danger, severe weather or unmanaged waste → restrict/close, notify and correct before reopening

Source: Authors' elaboration.

13. Monitoring Framework

The monitoring framework for Vardenis is intended to support adaptive management by tracking whether ecotourism development remains compatible with environmental and safety conditions, applicable site and land-use requirements, local economic objectives and visitor expectations. Its main objectives are to establish credible attraction, visitor, day/overnight and market baselines; confirm that visitor use remains within approved sites, routes and operating conditions; detect ecological, route, litter, fire, vehicle and land-use problems at an early stage; measure provider participation, local visitor spending and inclusion; assess whether Vardenis's positioning is converting wider Lake Sevan visitor flows into additional activity, service use or stays within the community; and trigger timely adjustments to products, routes, maintenance, closures or promotion where conditions or results deteriorate. Table 6 translates these objectives into an operational monitoring framework by linking each objective to indicators and baseline requirements, an initial direction or target, monitoring frequency, responsible actors and the corresponding management response.

Table 6. Monitoring framework

Objective	Indicator and baseline	Initial direction / target	Frequency and lead	Management response
Attraction and product readiness	Number screened; approved/conditional/rejected ; operators and missing actions. Baseline: 0 verified register	All promoted sites/products have complete Gate 1 record	Quarterly during setup; annual. Municipality + competent managers	Do not promote; complete evidence, redesign or reject
Visitor, stay and market baseline	Visits/bookings, origin, day/overnight, stay, accommodation/meal use, reason for choosing Vardenis	Use one Year 1 method; increase verified package conversion only within site conditions	Monthly in season; annual summary. Municipality/provider s	Adjust position, price, itinerary, channel or season
Approved use and safety	Open/closed status, guide/vehicle/group compliance, incidents and unauthorized access	Zero operation in closed/unsafe/incompatible areas	Pre-season and change-triggered. Managers + Municipality/operator s	Close/reroute, notify, correct or suspend operator
Environmental/route condition	Selected habitat/route points, informal tracks, litter/fire signs, erosion/disturbance and marker state	No net tourism-related deterioration after baseline	Pre-/post-season. Environmental/site actors + Municipality	Repair, restrict group/season/activity or temporarily close
Local value and inclusion	Active local providers; meals/stays/guiding/transport /products; indicative local spend; women/youth participation	Year 1 disaggregated baseline; increase verified local linkages	Six-monthly/annual. Municipality/provider s	Redesign supplier, training, booking or benefit links
Visitor quality and conduct	Satisfaction, complaints, rule breaches, information accuracy and unresolved defects	Improving satisfaction; no unresolved critical breach	Per product; annual review. Providers + Municipality	Coaching, correction deadline, content change or suspension

Source: Authors' elaboration.

Vardenis-specific monitoring priorities. The common indicators in Table 6 should be applied through the verified attraction register and fixed observation points on approved highland, wetland and other candidate routes, trailheads, observation locations and local-product nodes. Monitoring should record off-route or unauthorized vehicle movement, informal tracks, erosion, habitat or wildlife disturbance,

litter and fire signs, marker condition, land-use and grazing conflicts, mining-related restrictions and seasonal road and weather hazards. No attraction or species should be treated as confirmed in monitoring or promotion until its identity and location are verified.

Visitor retention and local value. Vardenis's distinctive performance question is whether movement through the wider Lake Sevan area is converted into Vardenis visits, stays, bookable experiences and paid use of local accommodation, meals, guiding, transport and products. Provider and booking records should therefore connect visitor origin, day or overnight status, stay length and service use to named routes and products. The same review should identify whether local enterprises and women- and youth-led providers are participating in the resulting tourism activity.

Review and management response. The Municipality should review the combined results with relevant environment, land, grazing, mining, route and site actors, tourism partners and participating providers before and after the main season and following significant incidents. Each review should record the decision taken, the responsible actor and the completion date, including whether an attraction, route or product is maintained, repaired, adapted, restricted, temporarily closed or considered ready for the next implementation phase.

14. Investment and Implementation Plan

The investment case for Vardenis starts from an unquantified community-level visitor and provider baseline. Marz-level agriculture, services and hotel-arrival statistics provide useful regional context, but they do not establish Vardenis-specific demand, commercial viability, accommodation sufficiency or ecological capacity. Investment decisions should therefore be grounded in the verified attraction and route register, pilot bookings and visitor conversion, provider performance, local-value records, environmental conditions, and clearly assigned operating and maintenance responsibilities.

Within this evidence base, the most realistic investment pathway is gradual and management-led. The Plan does not assume rapid destination growth within Vardenis, but it recognizes the opportunity to connect the community progressively with wider Lake Sevan and highland visitation patterns. Initial investment should therefore establish route organization, visitor orientation, environmental and safety controls and links with local services; subsequent phases can strengthen product packaging and service quality and, where demonstrated use justifies it, selectively improve visitor facilities. This approach reflects the expected small-scale, seasonal and nature-based character of ecotourism in Vardenis, where much of the potential local value is likely to be generated through accommodation, food, guiding, transport and local products rather than major tourism construction. It is also consistent with the local economic context, in which industry and food processing remain important in Vardenis town while agriculture, livestock and food production continue to play a significant role in the wider local and marz economy.

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 7 translates this investment logic into a practical readiness framework based on the attraction, route, service, governance and monitoring gaps identified in the preceding chapters. For each priority investment object, it defines the minimum output required, responsible actors, sequencing and the additional information needed before costs can be established. The table should therefore not be interpreted as an approved capital programme: investment objects should move toward financing and implementation only once the relevant sites and routes are validated, technical requirements and quantities are known, applicable environmental and land-use conditions are addressed, and operating and maintenance responsibilities are confirmed.

Table 7. Priority investment objects and implementation requirements

Investment object	Minimum output	Lead / partners	Timing	Cost status
Attraction discovery, GIS and readiness register	Named/numbered sites, evidence files, status, access, visitor role and approval gaps	Municipality + GIS/site/environment/heritage actors	First priority	Field scope and days required
Route, zoning and land-use compatibility	Approved routes/zones, legal roads, wetland/candidate-site, grazing, mining, hazard/season and closure layers	Municipality + competent land/environment/site actors	Before product launch	Technical surveys and design required
Information/booking function in existing space	Approved product directory, maps/status, booking/referral, visitor rules and provider links	Municipality + providers/regional tourism partners	Early pilot	Fit-out, system and staffing plan required
Minimal trailhead, wayfinding and safety works	Only for approved routes; quantities, accessible information and maintenance owner	Municipality + site/route managers/operators	After validation	Bill of quantities required
Accommodation and provider readiness	Provider census, gap plan, training, agreements, product tests and booking/local-value records	Municipality + accommodation/food/guide/transport partners	Years 1–2	Cohort and upgrade plans required
Monitoring, route-status and emergency tools	Forms/logs, selected counters if justified, condition points, closure notification and emergency information	Municipality + environmental/site/emergency actors	Start Year 1; ongoing	Equipment/staff time to be costed
Destination-positioning and market test	Tested eastern-Sevan-plus-highlands message, itineraries, channels, conversion and feedback data	Municipality + providers/operators/marketing support	After first approved products	Pilot campaign and survey design required

Source: Authors' elaboration.

Consistent with the investment-readiness priorities identified in Table 7, the 2026–2029 period should focus on discovery, validation and basic operational readiness. Investment should concentrate on the minimum evidence, coordination, information and controls required to launch safe and credible pilot products.

- Validation of visitor routes and access points in line with ecological sensitivity
- Installation of basic trail marking, directional signage, and visitor rules
- Preparation of simple interpretation materials for landscape, habitat, and local product themes
- Identification and organization of local service providers, including accommodation, food, and guiding
- Establishment of a local coordination mechanism involving the municipality, conservation actors, and service providers
- Introduction of simple visitor recording and local benefit-tracking procedures

This phase remains low-cost and management-oriented.

Phase 2

For 2030–2033, investment may move to tested product/service improvement only if the Gate 1 register, pilot demand, provider performance, ecological compatibility and maintenance system are functioning. Actions may include:

- Upgrading the quality and consistency of trail marking and route safety elements
- Strengthening guesthouse and food-service quality where local providers are willing to participate
- Piloting short ecotourism packages linked to hiking, landscape observation, rural food, and local products
- Improving the presentation and sale of local products such as honey, herbs, berries, dairy, and food-based experiences
- Preparing local guides or guide-like service providers for interpretation-based visits
- Introducing a more regular seasonal review of visitor use and environmental condition.

Phase 3

For 2034–2040, selective scaling may be considered only where observed use, local participation, provider viability and environmental monitoring justify it. It is not an automatic growth phase. Possible actions include:

- Improvement of visitor information points within existing public or private buildings
- Stronger bundling of accommodation, food, guiding, and product sales into simple packages
- Modest improvement of access infrastructure to already-used routes, where environmentally acceptable
- Clearer local arrangements for route maintenance, service standards, and shared responsibilities
- Gradual refinement of benefit-sharing arrangements where tourism becomes regular enough to justify them

Investment should be defined as specific objects with a lead, operating cost and maintenance arrangement. Amounts remain to be determined after field validation, design, quantities and procurement method are confirmed.

Financing, Costing and Investment Review

Financing should follow the same staged and evidence-based logic as implementation. Public and project-based financing will be particularly important in the early phase because the principal needs concern attraction and route validation, signage, visitor rules and information, environmental and safety controls, local coordination and basic monitoring. These are enabling functions that are unlikely to be

delivered adequately through private initiative alone. Municipal resources are also unlikely to cover all initial requirements, making a combination of local public financing and external programme or donor support the most realistic basis for early implementation. Private investment should become progressively more relevant where pilot activity demonstrates demand, focusing primarily on incremental improvements by accommodation, food, guiding, transport and local-product providers rather than major tourism construction.

Financing should therefore be linked to verified investment objects and clearly assigned responsibilities. Public or donor support is most appropriate for attraction and route validation, environmental controls, visitor information and shared management functions, while provider investment can support accommodation, meals, guiding, transport, product quality and other commercially viable services once demand has been tested. Cost-sharing for maintenance or monitoring may also be considered where responsibilities and contributions are formally agreed. A destination-scale PPP or major tourism facility is not justified by the present evidence and should not be treated as a prerequisite for developing Vardenis's ecotourism offer.

Investment costs should be established progressively as individual objects reach technical and operational readiness. Each intervention should have a validated location and responsible owner or manager, defined technical scope, applicable environmental, land-use and safety requirements, quantities, an implementation and procurement approach, and identified operating and maintenance responsibilities before a fixed investment amount is adopted. The Plan therefore defines investment by function and sequence rather than assigning unsupported capital estimates: first establish and test the destination's routes, products and management arrangements; then strengthen local services and product linkages; and subsequently support selective facilities or institutional arrangements where actual use, provider viability, environmental compatibility and maintenance capacity justify further investment.

Investment review and scaling should be based on observed Vardenis performance rather than a predetermined long-term visitor-growth scenario. Gegharkunik marz agricultural, service and hotel statistics remain useful contextual indicators but do not measure Vardenis-specific product demand or demonstrate financial viability. Similarly, the available 2022–2024 marz hotel-arrival series is too short and geographically broad to support a defensible Vardenis visitor projection to 2040, and no long-range growth forecast is therefore adopted. Progression between implementation phases should instead draw on the Year 1 site, product, visitor and provider baseline and subsequent evidence on bookings and visitor conversion, day and overnight use, local spending and provider participation, environmental and route condition, visitor experience and operating and maintenance performance. This allows individual investments to be advanced, adjusted or deferred according to demonstrated results rather than assumed growth.

15. Final Site Classification and Conclusions

Vardenis is provisionally classified as suitable for controlled ecotourism development, with visitor and service functions concentrated in the town and other verified lower-risk nodes. 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 Vardenis's highland setting and its potential connection with the wider Lake Sevan landscape. Wetland and other sensitive habitats, open landscapes, cultural features, agriculture and livestock traditions and local products can support a distinctive eastern-Sevan and highland offer. The opportunity is credible, but the attraction register, route locations, visitor demand, provider capacity and several ecological claims remain insufficiently verified and must be treated as evidence gaps rather than established products.

The classification therefore remains attraction-by-attraction and route-by-route. Every promoted site or experience must pass identity and location verification, legal-access and land-compatibility checks, ecological and safety screening, grazing and mining-conflict review, seasonal-access confirmation, operator readiness and maintenance assignment. The Plan does not support broad promotion of unnamed or unverified attractions, guaranteed wildlife claims or physical investment before those conditions and an initial demand test are complete.

The planning conclusion is a discovery-led, controlled highland model. The immediate Gate 1 task is to verify and map the attraction and route register, confirm land and use compatibility, establish accurate information and booking, map providers, collect visitor and provider baselines, test a limited set of approved products and operate the monitoring and maintenance response. Later consolidation or investment should proceed only where monitoring confirms safe operation, acceptable site condition, visitor uptake, local economic benefit and the capacity to maintain the assets.

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 ☒ Moderate	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	Vardenis Community	
	Marz / Municipality	Gegharkunik/Vardenis	
	Coordinates / GIS reference	Geographic Coordinates (WGS84) Latitude: 40° 10' 50" N (40.180556° N) Longitude: 45° 43' 12" E (45.720000°)	
	Legal status	☒ Protected Area ☒ Emerald Site ☒ Community Land ☐ Other	Project map shows Emerald Network candidate-site context; confirm official status/boundary/features and other legal/land status for each site.
	Link to existing plans	☒ PA Management Plan ☒ Community Development Plan ☐ Tourism Strategy	
Ecological & Conservation Profile	Ecosystem type	☐ Forest ☒ Grassland ☒ Wetland ☐ Alpine ☒ Mixed	Meadows, mountain ecosystems, watershed-related habitats
	Key habitats	Highland grassland, alpine, lake-adjacent ecosystems	
	Species of concern	No Vardenis route/site species inventory; wider Lake Sevan records are contextual only.	The area surrounding Vardenis, particularly habitats associated with Lake Sevan, supports

Component	Field / Criteria	Input / Selection	Notes / Logic
Socio-Economic & Community Context		Establish product-site baseline before wildlife claims.	several species listed in the Red Book of Armenia
	Conservation sensitivity	☐ Low ☐ Medium ☒ High	Interim community-scale category; replace with mapped site-specific avoidance/control/monitoring conditions.
	Population ~	Vardenis town: 12.6 thousand at beginning of 2025 (Armstat); consolidated-community total and settlement breakdown require same-year official verification.	
	Main livelihoods	☒ Agriculture ☒ Livestock ☐ Forestry ☒ Tourism ☐ Services ☐ Industry	
	NTFPs present	☒ Honey ☒ Herbs ☐ Mushrooms ☒ Berries ☐ Other	
	Cultural assets	Rural traditions, local food	
Tourism Assets & Baseline Use	Community willingness	☐ Low ☐ Medium ☒ High	
	Natural attractions	Eastern Lake Sevan setting; highland landscape candidates; natural-monument and other categories shown on project map—names/readiness to verify	
	Cultural attractions	Numerous monastery, cave, historical-place and monument categories shown on project map; official names, location and readiness to verify	
	Existing activities	☒ Hiking ☐ Biking ☒ Camping ☒ Guided tours ☐ None	No verified activity inventory; treat hiking, observation and agro-cultural experiences as proposed pilots after Gate 1.

Component	Field / Criteria	Input / Selection	Notes / Logic
Suitability Assessment & Zoning	Visitor flow	☐ Low ☒ Medium ☐ High	Not quantified; establish attraction/route, day/overnight, booking, spending and provider baseline in Year 1.
	Accessibility	☒ Easy ☐ Moderate ☐ Difficult	Town access is not site access; validate legal road/trail, season, hazard, land-use and emergency conditions for each product.
	Ecological sensitivity	☐ Low ☐ Medium ☒ High	
	Accessibility	☒ Good ☒ Moderate ☐ Poor	
Ecotourism Product Development	Tourism demand	☐ Low ☐ Medium ☒ High	Potential within wider Sevan market is unmeasured; test conversion and willingness to travel/buy/stay before scaling.
	Zone classification	☒ Strict Conservation Zone ☒ Controlled Ecotourism Zone ☐ Sustainable Development Zone	Map service/regular-use, controlled-use and no-go/seasonal-closure layers with competent authorities/managers.
	Hiking routes	☒ Yes ☐ No	
	Wildlife observation	☒ Yes ☐ No	No developed birdwatching location evidenced; conditional named-site pilot only after ecological, access and manager validation.
	Agro-ecotourism	☐ Yes ☒ No	Limited
Infrastructure & Service Planning	Cultural landscape tourism	☒ Yes ☐ No	
	NTFP-based experiences	☐ Yes ☒ No	
	Trails	☒ Yes ☐ No	No verified trail inventory; approve, grade and maintain selected routes before marking or promotion.
	Signage	☐ Yes ☒ No	Install only after route/site approval; maintain route-status and closure information.
	Visitor centers	☐ Yes ☒ No	Use an existing municipal/private space for information/booking unless operating evidence supports another object.
	Accommodation	☒ Yes ☐ No	Presence does not prove sufficiency; census beds, season, occupancy, prices, quality, accessibility and package participation.

Component	Field / Criteria	Input / Selection	Notes / Logic
Governance & Institutional Arrangements	Protected Area Authority role	☒ Assigned	Sevan National Park/competent environmental authority: confirm jurisdiction/status, compatibility, restrictions and monitoring where relevant.
	Municipality role	☒ Assigned	Vardenis Municipality: convene platform, maintain attraction/route/product register, coordinate public/service actions and report implementation.
	Community groups role	☐ Assigned	Settlement/community and land-user groups: validate sites/routes, services, conflicts, inclusion and local-benefit channels.
	Private sector role	☒ Assigned	Providers: operate bookable services, comply with conditions, brief visitors, report data/incidents and meet maintenance commitments.
	NGO role	☒ Assigned	NGO/research/training actors: facilitation, biodiversity/heritage review, capacity and monitoring as agreed; confirm each organization.
	Co-management agreement	☐ Yes ☒ No	No co-management claim. Begin with a lawful Municipality-Sevan National Park/competent-authority operating protocol.
	Revenue-sharing agreement	☐ Yes ☒ No	
	Public-private partnership	☒ Yes ☐ No	
Visitor Management System	Visitor limits	☐ Yes ☒ No	No community-wide quota before baseline; set route/product limits only where evidence or competent-manager conditions require.
	Seasonal restrictions	☒ Yes ☐ No	Seasonal status for ecology, weather/snow, fire, route condition, land use and maintenance.
	Guided-only access	☐ Yes ☒ No	Guided use for specified ecology, safety or interpretation conditions; approved lower-risk self-guided use may remain.
	Zoning enforcement	☒ Yes ☐ No	Enforcement through current route/status map, manager decisions, operator agreements, signs, inspection and closure response.
	Max visitors per day	To be set by product/site only after baseline and competent-manager review	

Component	Field / Criteria	Input / Selection	Notes / Logic
	Max group size	To be set by product/site according to ecology, safety, operator and service conditions	
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 attraction/route, day/overnight and market baseline / Frequency: monthly in season; annual summary	
	Local income	Baseline: not available / Initial target: Year 1 local-provider and visitor-spending baseline / Frequency: six-monthly/annual	
	Biodiversity condition	Baseline: Year 1 selected site/route condition points / Direction: no net tourism-related deterioration / Frequency: pre-/post-season	
Investment & Financial Structuring	Estimated investment	To be determined after attraction/route validation, design, quantities and	

Component	Field / Criteria	Input / Selection	Notes / Logic
		operating/maintenance plans	
	Financing type	☒ Public ☒ PPP ☒ Private	
	Revenue sources	☒ Entry fees ☒ Services ☒ Products	
	Financial viability	☐ Low ☒ Medium ☒ High	Unknown until approved product pilots and provider economics are tested.
Implementation Plan	Action	Discover/validate attractions; approve routes/zones; establish cooperation and baseline; pilot approved products; invest only where justified	
	Responsible	Vardenis Municipality with Sevan National Park/competent authorities, site/land managers, settlements, providers and technical partners	
	Timeline	2026-2029 discovery/readiness and pilots; 2030-2033 tested improvements; later scaling only after demand, local-value and environmental evidence	

Annex 2: Stakeholders and Consultation Status

The March 9, 2026 meeting summary states that representatives of Vardenis Community participated. However, the available participant list does not identify a Vardenis name or organization that can be matched confidently. The consultation evidence is therefore recorded transparently below. The implementation table lists the actors required to validate and operate the package; they are not described as consulted unless the record confirms it. Contact details remain in project records and are not repeated here.

Recorded participant / group	Organization / role	Relevance	Status
Vardenis community representative(s)	Name and organization not identifiable in the available participant list	Local priorities, attractions, services and implementation	Participation stated in meeting summary; identity/details to confirm
REC Caucasus Armenia project team	Meeting organizers and technical team	Project method, facilitation and package preparation	Consulted / meeting organizers; names retained in meeting record

Stakeholder	Expected role	Evidence / next action
Vardenis Municipality	Convene package; maintain attraction/route/product register; coordinate public/service actions and annual plan	Confirm designated coordinator and complete formal product-level consultation
Sevan National Park SNCO	Confirm role within legal competence; review relevant routes/sites, seasonal conditions, conservation messages and monitoring	Direct consultation not evidenced—agree operating protocol and site-by-site role
Competent Emerald/environmental authority	Confirm candidate-site status/boundary/features and compatibility requirements	Direct consultation not evidenced—complete official GIS/status and feature review
Settlement representatives, land users, farmers and livestock keepers	Validate sites/routes, grazing/water/season conflicts, community services and benefit conditions	Map affected settlements/users and hold route/product consultations
Heritage, cultural and site managers	Confirm site identity/status, access, conservation, interpretation, opening and maintenance	Identify managers for every selected map point and obtain written conditions
Accommodation, food, guide, licensed transport and product providers	Operate bookable packages; meet safety/hygiene/origin rules; report use, incidents and local value	Complete provider census, readiness assessment and written commitments
Aregouni Tourism Promotion NGO and other local/civil actors	Possible facilitation, local mobilization, product testing and promotion	Named in current draft but consultation/role not evidenced—verify organization and agree terms
Biodiversity, GIS, mining/land-use, accessibility and emergency specialists/authorities	Site/route evidence, conflict/safety review, inclusive design and emergency readiness	Engage according to each attraction/product; record decision and responsibility
Competent Forest Economy / forest-	Validate any route or facility touching forest-managed land, legal roads, work/fire/closure and habitat conditions	Conditional stakeholder—confirm land coverage before inclusion

management unit, if applicable		
Women, youth and other community/user groups	Service participation, access needs, visitor/user feedback and local-benefit monitoring	Conduct targeted consultation and track disaggregated participation

Source: Authors' elaboration.

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

This concise matrix is a planning summary, not a separate full SWOT study. ‘Verified’ denotes information supported by the available project materials; ‘Indicative’ denotes a planning conclusion that still requires attraction, site, route, market, ecological, ownership, operator or institutional validation.

STRENGTHS	WEAKNESSES
▲ [Verified] Vardenis combines the eastern Lake Sevan setting with a large highland hinterland and a dispersed cultural-landscape resource base. ▲ [Verified] Agriculture, livestock and local food systems provide a real base for community meals, farm-linked interpretation and product sales. ▲ [Verified] The supplied project maps show broad Emerald Network candidate-site context and numerous natural/cultural attraction categories in and around the community. ▲ [Verified] The town provides a basic service and road-access base from which controlled day and short-stay products can be organized.	▲ [Verified] Attractions shown by symbols are not named, numbered or field-verified, and no approved tourism routes or wetland/birdwatching sites are identified. ▲ [Verified] No community visitor, day/overnight, occupancy, price, expenditure, product-sales or route-condition baseline is available. ▲ [Verified] The destination lacks a clear market position and is affected by an image associated with mining rather than an established nature-tourism identity. ▲ [Verified] Provider, guide, booking, maintenance, route-status and Municipality-conservation coordination systems are not yet operational.
OPPORTUNITIES	THREATS
▲ [Indicative] An attraction-discovery and readiness programme can convert the map’s dense but unnamed resource layer into approved, investable product clusters. ▲ [Indicative] An eastern-Sevan-plus-highlands offer can complement, rather than compete with, better-known roadside Lake Sevan stops through landscape, food and community experiences. ▲ [Indicative] Validated highland walks, cultural-landscape circuits, local-food experiences and controlled legal-road transfers can generate guiding, transport, meal and stay income. ▲ [Indicative] A Municipality-Sevan National Park protocol and Emerald compatibility review can provide clear route, season, conservation and visitor-information decisions.	▲ [Verified] Promotion before attraction, access, wetland, species, safety and operator validation could create unsafe visits and reputational damage. ▲ [Verified] Off-route vehicle use, litter, fire, trampling, noise and poorly located facilities can affect highland, water-related and candidate-site features. ▲ [Indicative] Mining-related land-use, visual, access or safety constraints may conflict with tourism routes unless screened site by site with competent actors. ▲ [Indicative] Short seasonality, weak demand conversion and insufficient accommodation/service readiness could leave new assets underused and unmaintained.

Source: Authors’ elaboration.