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Leveraging policy and finance for ecosystem conservation in the Vjosa River Basin

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Leveraging policy and finance for ecosystem conservation in the Vjosa River Basin

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Abstract:

The Vjosa River Basin, located in the heart of the Balkans, is one of Europe's last free-flowing wild rivers comprising a large number of pristine habitat types with a wealth of biodiversity. Widespread degradation of the forest ecosystem and unsustainable land use due to logging and livestock farming have led to an urgent need for effective conservation planning and sustainable management. This study applies the Ecosystem Service Opportunity (ESO) framework to provide a diagnosis of the social-ecological context and the current institutional and legal frameworks governing the Vjosa River in Përmet area and its surroundings. Based on 15 semi-structured interviews with stakeholders from local government, NGOs, and a national government agency, we identify opportunities for policy and finance instruments to encourage ecosystem conservation and sustainable livelihoods. The results are compared to Integrated Management Plan (IMP) for the Vjosa Wild River National Park. Our results align with the IMP approach in several strategic areas (i.e., stronger law enforcement and patrolling, regulating illegal livestock grazing, improved staff management and collaboration between local agencies, incorporating traditional knowledge in conservation strategies), but further emphasizes the need for action beyond national park boundaries, decentralization with stronger municipal involvement, establishment of a collaborative platform, and the diversification of funding initiatives.

Keywords: Vjosa River Basin, ecosystem services, conservation, policy instruments, financing mechanisms

1. Introduction

The Vjosa River Basin, located in the heart of the Balkans, is one of Europe's last free-flowing wild rivers. The area comprises a mosaic of diverse habitat types of high conservation importance, from narrow gorges in the upper region to wide braided river sections in the middle, and a near-natural delta at the Adriatic Sea (IUCN 2023). The pristine ecosystems contain a wealth of biodiversity and natural beauty (Meulenbroek et al. 2020). After a decade of relentless efforts by a coalition of conservation NGOs, environmental agencies and other stakeholders, the Vjosa river was declared a Wild River National Park in March 2023 (Euronatur 2023). Additionally, Albania has applied for the Vjosa River National Park to be included in the UNESCO 'Man and the Biosphere' Program (TEMA 2024). By protecting an entire river system, the national park plays a significant role for international river conservation efforts (Euronatur 2023). Moreover, the National Park provides economic opportunities for local communities, e.g. through responsible tourism, and may help address the depopulation in the area (IUCN 2023).

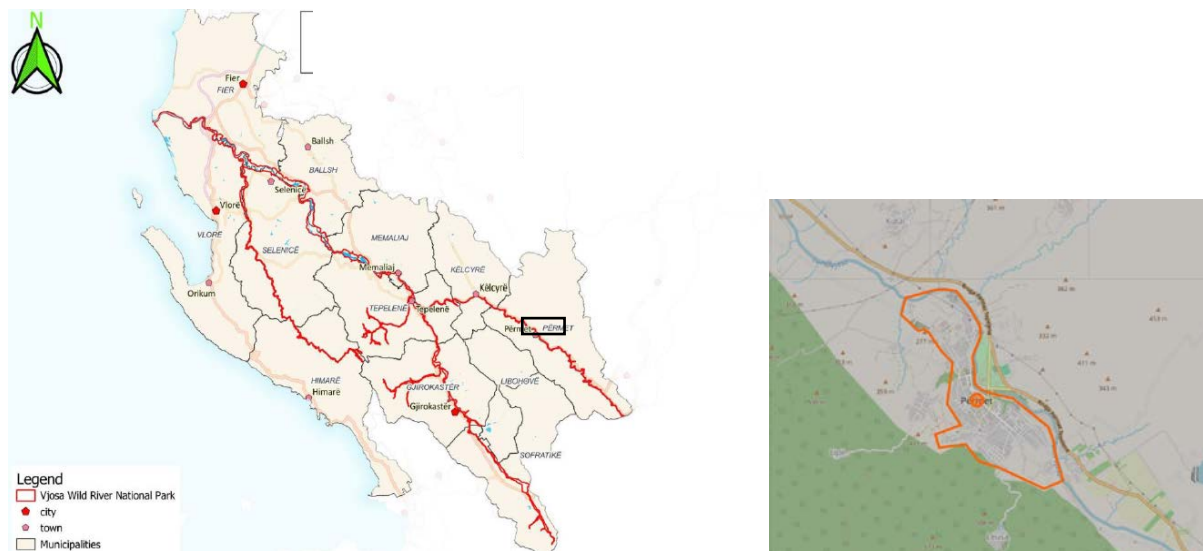


Fig 1 Map showing the Vjosa Wild River National Park, highlighting the location of Përmet.

Source: *VWRNP IMP, OpenStreetMaps*

Sustainable land management practices and alternative livelihoods, such as beekeeping and fruit-bearing tree management, are slowly starting. However, the river ecosystem faces threats requiring interventions for effective conservation and sustainable management (Hasenauer et al. 2022). Long-lasting historic land use with logging and livestock farming (particularly goats and sheep) and widespread forest-degradation are leading to reduced soil productivity and erosion (Hasenauer et al. 2022). The protected area, particularly the river delta, is facing uncontrolled growth in tourism and local communities and civil society are concerned about the government's plan to take water from the Shushica River (one of the key tributaries) to promote mass tourism on the Mediterranean coast (Euronatur 2024). The recent amendment to the law on "Protected Zones" and the deletion of Article 33, which restricted activities within protected areas to those aimed at improving the environment (Lapsi 2024), is a major setback for conservation initiatives: Now the construction of tourism-related structures and other economic activities categorized as "strategic investments" is allowed, threatening the park's integrity and

legitimizing controversial projects such as the airport in the Vjosa River Delta and the resorts on Sazan Island (Reuters 2025). Furthermore, the park's management faces a significant lack of staff. As the National Agency for Protected Areas (NAPA) has only appointed a limited number of personnel, they cover vast areas with inadequate supervision capabilities. Moreover, they lack proper training in park management, including visitor management and collaboration with local communities.

Our research identifies entry points for effective policy strategies and funding options to address the ongoing degradation of forest areas in the Vjosa River Basin. The geographical focus is the area surrounding Përmet city. Relatively little attention has been paid to this area compared to other cities along the Vjosa River. The study analyzes the social-ecological system and the institutional and legal framework governing the area and identifies opportunities to develop policy and finance instruments (Rode et al. 2016). The results are compared with the Integrated Management Plan (IMP) for the Vjosa Wild River National Park (Kovarovics et al. 2024). The IMP provides an authoritative framework for the park's preservation and could greatly support efforts toward effective conservation. The scope of IMP covers the entire national park and is in that sense broader than our analysis of the Përmet region. On the other hand, IMP focuses on the legal and policy contexts that frame the park's management, whereas our analysis includes the area beyond the national park boundaries.

2. Methods

2.1. Analytical framework

The analysis followed the first four steps of the "Acting on Ecosystem Service Opportunities" (ESO) methodology (Rode et al. 2016¹). The methodology provides guidance for selecting and planning policy and financing instruments dedicated to ecosystem conservation and sustainable development in a specific social-ecological context.

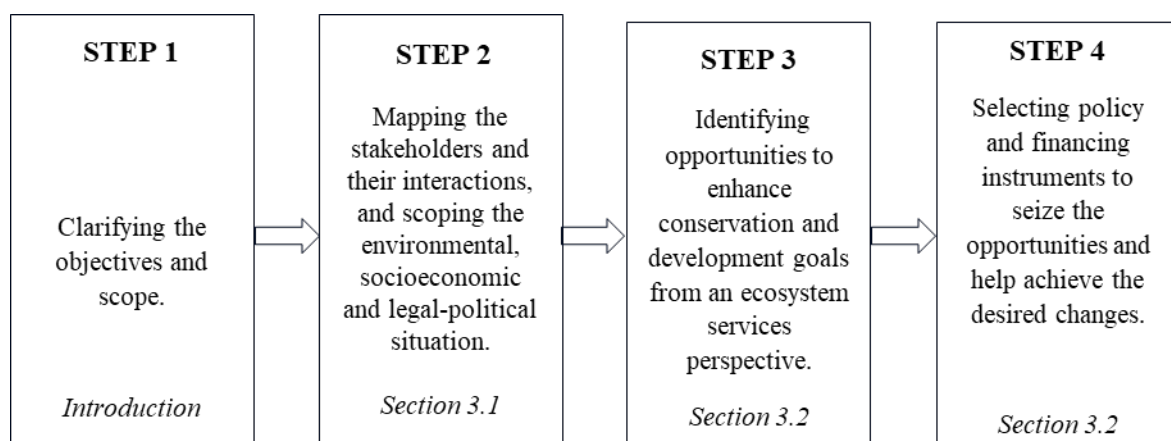


Fig 2 Summary of the four Steps of the Ecosystem Service Opportunity (ESO) methodology (based on Rode et al. 2016) and indication in which section the results of each step are reported.

¹ <https://www.es-opportunities.net/>

Step 1 of the ESO methodology identifies the vision, broad aims and the spatial scope of the study, as described in the introduction. *Step 2* identifies the key stakeholders related to the issue and collects general information on the environmental, socio-economic and political context (see Section 3.1). Section 3.1 also presents an overview of the ecosystem services (ES) and their relevance to critical issues for the stakeholders in the target area.

Steps 3 and 4 entail the core part of the analysis, reported in Section 3.2. *Step 3* starts with laying out how different actors and activities relate to the ecosystems, distinguishing between stewardship, degradation, and benefits of the ES. ES stewardship refers to actors who engage in activities that protect ecosystems and ensure the sustainable provision of ES. While nature is the primary provider, the ability of an ecosystem to generate services without losing quality depends to a large extent on how it is managed or actively protected by human actors. ES degradation is caused by actors who pollute ecosystems and harm the provision of ES. ES benefits specify who used or depends on ES, directly or indirectly, including for livelihoods. Stewards, degraders, and beneficiaries of ES are not always distinct groups. An individual or entity can simultaneously be a provider, beneficiary, and degrader. Based on this clearer understanding of the relationships between actors and ES, the rationale of four economic principles allows identifying “ES opportunities” as the entry points by which policy and finance instruments can be used to motivate actors to support ecosystem conservation. The first three principles of ‘*Steward Earns*’, ‘*Polluter Pays*’, and ‘*Beneficiary Pays*’ directly link to the roles of actors and their activities in the area. The fourth principle concerns ‘*Innovation*’ in the sense of exploring potential ways for people to benefit more from healthy ecosystems through innovative uses or interactions with biodiversity.

Finally, *Step 4* proposes policy and finance instruments to seize the opportunities identified and achieve desired changes, based on a comprehensive assessment of the legal and strategic policy framework and the specific instruments that currently influence the protection of biodiversity and ES. Sub-sections in 3.2. directly present the “opportunities for instruments” for each principle, combining the results of Steps 3 and 4 for the sake of brevity. For results of the detailed analytical steps see the SM.

2.2. Data collection

Data was gathered through a thorough assessment of the academic and grey literature including government sources, combined with 15 semi-structured interviews with stakeholders with specific expertise on the topic and covering the perspectives of different governance levels: from local government (7), local, national, and international NGOs (7) and a national government agency (1). The overview of the most relevant stakeholders presented in section 3.1 is building on the report by Qendro (2019), consultations with local public authorities and the semi-structured interviews.

The interviews were conducted by the first author, either in person (for local stakeholders), on Zoom, by phone, or via email exchange between November 2023 and May 2024, and lasted up to 2 hours. Interviewees gave verbal consent to participate in the study.

The semi-structured interviews were designed for the purpose of gathering contextual information which would be relevant to the research objectives. The set of questions was predefined and aligned with the specific information gaps which were identified during the research process. Although the structure was consistent, it allowed flexibility to explore further when clarification or further information was needed.

The main goal of the interviews was to fill specific contextual gaps and validate factual information in a question-and-answer format, focusing on the targeted topic. They were not audio recorded, but notes were taken during the conversations to capture key responses and relevant details necessary for the analysis. Interview protocols are available on request.

In order to derive policy options, the opportunities for policy and finance instruments identified in the ESO analysis were compared to the Integrated Management Plan (IMP) for the Vjosa Wild River National Park (Kovarovics et al. 2024).

3. Results

3.1. Stakeholders and important local issues

Stakeholders: Our stakeholder analysis revealed seven important stakeholder groups. Two agencies directly oversee the study area within and beyond the national park: The Local Office for Protected Areas, which depends on the Regional Agency for Protected Areas, operating under the directives and funding of the Ministry for Tourism and Environment and the Municipal Forestry Directorate falling under the Municipality of Përmet. Interviewed staff from these agencies highlighted that each had a specific area of responsibility and lacked collaboration with one another. These dynamics hinder coordinated efforts and thus directly impact the overall management of the area and the effectiveness of conservation priorities and efforts.

Stakeholder name/group	Attitude to the relevant conservation goals	Collaboration with other stakeholders (with whom, in what sense?)	Current status of engagement
Local office for Protected Areas	Moderate- inclined to support conservation goals but are equally committed to safeguarding the immediate needs of the local community, particularly in matters like heating.	Low collaboration with municipality, Sub-structure of NAPA	High
Municipal Forestry Directorate	Moderate- inclined to support conservation goals but are equally committed to safeguarding the immediate needs of the local community, particularly in matters like heating.	Closely tied to the local municipality as part of its administrative structure.	High
Përmet Municipality	Generally interested in conservation and open to funding and project opportunities from both national and international donors.	Collaboration with Ministry of Tourism and Environment	Moderate
National Agency for Protected Areas (NAPA)	The primary regulatory body overseeing the study area, predominantly focused on conservation efforts through legal regulations.	Sub structure of Ministry for Tourism and Environment	Low
Ministry for Tourism and Environment	The responsible ministry, usually interested in conservation, has approved a law change that harms National Parks. This might end the national network of Protected Areas, allowing construction like hydropower plants, oil facilities, and concrete structures within natural parks.	Strong collaboration with IUCN	Low No contact person
IUCN	Strongly invested, the leading organization preparing the Integrated Management Plan for the Vjosa River.	Collaboration with the Ministry for Tourism and Environment	Moderate
Eco Albania	National NGO who lead the #VjosaRiverNationalParkNow campaign, strongly advocating for higher level of protection.	Collaboration with IUCN and Ministry for Tourism and Environment	High

Tab 3 Stakeholder Mapping, including their attitudes, collaborations, and current level of engagement.

Important local issues related to ES in the area are food security, health and nutrition, and local livelihoods. While the majority of the rural population depends mainly on agricultural production and farming as provisioning services, tourism and agritourism also contribute significantly to local incomes (Përmet Municipality 2020). Additional ecosystem services identified are the various fruit-bearing trees that provide edible fruits and nuts, benefiting local diets and offering economic opportunities through the sale of tree products like fruits, nuts, and timber. Trees and forests provide essential habitats for pollinators, such as bees and butterflies, whose pollination services are crucial for the reproduction of many food crops. Moreover, forests in the area are abundant in medicinal plants, including those with nutritional properties, which are being promoted through several local projects (MAPCULT Project Përmet Municipality 2021).

3.2. Proposals for policy and finance instruments based on ESO

This section presents proposals for new or adapted policy and financing instruments along the four economic principles, building on the ES opportunities identified and an assessment of existing legal and strategic policy frameworks and instruments (Step 4).

3.2.1. Opportunities for instruments to support ecosystem stewardship

Stewardship of ecosystems in the Përmet area is provided by local beekeepers, landowners, local NGOs, the local municipality, NAPA, the Ministry of Tourism and Environment, and the Ministry of Agriculture and Rural Development. These actors engage in various activities such as (nut-)tree planting, medicinal plant cultivation, reforestation, and supporting the development of apiculture.

Regarding options to support and motivate stewards to preserve ecosystems, in accordance with the *Steward-Earns-Principle*, the first opportunity is the *support of local honey producers for planting native species* (wild strawberries, chestnuts etc.) in areas where they station beehives (Steward Earns Principle- SE1). The main funding source for beekeepers is through national subsidy schemes (Agricultural and Rural Development Agency, 2024). They receive subsidies based on the number of hives they own, typically applicable to those with over 50 hives. This scheme is revised annually and is determined by the yearly budget. It would be important to increase subsidies and extend subsidy eligibility to smaller-scale beekeepers with fewer than 50 hives to ensure they receive comparable support. For example, in Kosovo, beekeepers with at least 30 hives receive a 20 Euro subsidy per hive, while in Albania, they receive only 1000 leke (approximately 10 euros) per hive for 50 hives or more.

In line with the Local Government Plan of Përmet Municipality, funding could also *prioritize self-initiated conservation actions led by grassroots projects and local NGOs*, particularly those that help preserve and protect the riparian area of the river and the reforestation of degraded areas through tree planting (SE2). Donor programs or public-private partnerships could also expand funding to include provision of seeds and certifications.

Instruments to support stewardship activities could build upon the existing IPARD (Instrument for Pre-Accession Assistance for Rural Development) (European Commission, 2023) subsidy schemes. The IPARD II program in Albania was funded by the European Union and the Albanian government to support rural development and modernize agriculture. It focuses on measures such as improving agricultural infrastructure, enhancing processing and marketing, and promoting environmental sustainability. IPARD Scheme 3 had a budget of 7 million euros

planned for investments in the establishment and protection of forests. However, these schemes have been halted due to allegations of misuse (Balkan Insight, 2024).

Another important option identified is to *increase funding for management entities to develop and execute management plans* (SE3). Well-structured management plans are essential for sustainable ecosystem management in all 7 units within the park. And yet, only one management unit currently has a management plan, leaving the other six without proper oversight. It is advisable to conduct a study followed by a management plan to ensure all areas receive appropriate management. Instruments to support funding for management entities for the development and implementation of communal management plans could involve the ministry for Tourism and Environment, international conservation grants, public-private partnerships, or donor programs.

In the context of the government's efforts to enhance human capacities, equipment, and tools for protected areas, biodiversity protection, and forest services, the analysis identified opportunities to *build on the vital role of traditional knowledge* (SE4): further educational programs with awareness-raising activities and workshops fostering community-driven conservation initiatives and collecting and communicating traditional knowledge on native species and the benefits of their preservation are needed.

Opportunities to *support ecotourism businesses* (SE5) allude to financial and technical support, aiming to enhance their contribution to ecosystem conservation. As a highly attractive area with unique landscapes, the region offers immense tourism potential. Local tourism initiatives, such as Vjosa Explorer, an NGO that integrates tourism and environmental preservation, as well as local eco-friendly businesses like Albturist Eco Camping & Rafting and other eco-tour operators, are emerging as key players in the area. Rafting, canoeing, and kayaking have gained popularity in recent years, capitalizing on the pristine rivers and natural landscapes. Financial incentives, such as grants for infrastructure improvements through IPARD schemes have been available to support these businesses.

3.2.2. Opportunities for instruments to reduce ecosystem degradation

Local communities and landowners contribute to ecosystem degradation and deforestation especially by tree cutting, unsustainable livestock farming, and planting non-native trees. These activities harm the ecosystem and reduce the availability and quality of the ecosystem services.

Following the rationale of the *Polluter/Degrader Pays Principle (DP)*, the most promising opportunities identified were *to reduce illegal tree cutting (DP1) and livestock farming in areas of important biodiversity (DP2)*. Suggested policy instruments related to improved law enforcement, patrolling, implementing existing fines and requiring restoration activities from violators. Local structures for managing penalty cases are ill-prepared. Interviews with local municipality and forestry agency employees revealed that, to date, there have been no legal cases or proceedings related to penalties for logging or grazing violations.

Trash disposal along riverbanks (DP3) is another critical issue. The World Bank's Solid Waste Management project (Euronews, 2024) included the Vjosa River as one of the key focus areas, strongly recommending better trash disposal infrastructure. Equally important is raising awareness within the local community, as behavior change is crucial to effectively addressing this issue.

3.2.3. Opportunities for instruments to obtain support from ES beneficiaries

The primary beneficiaries of the ES are the local community, ecotourism businesses, tourists, and apiculture practitioners. They receive significant benefits, including clean water, timber provision, flood and erosion protection, scenic areas for tourism, and local forest trees that support honey production from flowers, chestnuts, and wild strawberries. These services are crucial for their livelihoods and the local economy.

Support from those who benefit from ecosystem services, according to the Beneficiary Pays Principle, could include financial support from tourists and ecotourism businesses (BP1). The number of tourists in the area is increasing every year, and tourism businesses are flourishing. Instruments could involve legal frameworks requiring beneficiaries, such as tourists and local businesses, to contribute financially to conservation efforts through entry fees, taxes, or they could rely on voluntary contributions as a starting point.

Furthermore, clear regulations for water usage and fees that align with national policies while reflecting local needs emerged as another opportunity (BP2). This could involve developing a transparent system for setting and adjusting water tariffs based on consumption and community demands.

Additionally, since diverse actors are interested in supporting ecosystem services in the area, setting up a joint fund for channeling financial support from international donors, local government, and the local community can be successful (BP3) seems promising. Although most attention is focused within the national park's borders, funds should also be allocated to the surrounding area. This fund should have clear guidelines for allocation, prioritizing projects that improve conservation, ecosystem service preservation and enhancement and promote sustainability. Regular reporting and audits would help maintain transparency and build trust among stakeholders. Involving local communities in the decision-making process can help ensure that funding addresses the most pressing needs.

3.2.4. Opportunities for instruments to promote innovative activities

The *Innovation Principle* (I) aims to leverage innovative concepts to enhance ES and generate livelihood benefits. Stakeholders regarded *marketing of locally produced goods* (I2) as promising opportunity. One NGO representative proposed to introduce a national park municipality promoting the marketing of locally traded products sourced from protected areas. It was also suggested to establish a financing mechanism channeling a portion of the revenue generated from marketing local products back into conservation efforts and for empowering local stewards. A self-sustaining funding model could involve allocating a percentage of sales from locally sourced goods to support reforestation projects, stewardship training, and capacity building for local NGOs and community groups engaged in conservation.

Another opportunity (according to one interviewee unlikely and ineffective) was related to the development of support schemes for medicinal plant collectors (I1). Initiatives could build upon existing medicinal plant cultivation support programs (AZHBR 2025), markets identification and ensure fair compensation for collectors. Despite the recognized potential implementation may prove challenging due to poorly regulated markets and significant funding requirements.

	Identified opportunity	Suggested policy or finance instruments
Opportunities to support ecosystem stewardship	SE1: Support local honey producers for planting native trees (wild strawberries, chestnuts etc.) in areas where they station beehives. They already have an interest in these trees, but could need financial support, seeds, certifications, etc.	Financial grants, partnerships with businesses with NGOs and subsidy expansion.
	SE2: Strengthen and expand funding for initiatives promoting tree planting (for instance, increase nr of tree planted during the reforestation month) and apiculture, empowering individuals and communities to take self-initiated conservation actions.	Self-initiated conservation actions, donor programs or public-private partnerships.
	SE3: Increase funding for Management Entities (Ministry of Tourism and Environment) to develop and execute management plans for additional units.	support through the relevant ministry, international conservation grants, public-private partnerships, or donor programs.
	SE4: Build on traditional knowledge with a specific focus on preserving native species (such as information on how to collect plants properly and how to sustainably maintain them), to build upon local expertise and community-driven conservation efforts (more trainings organized by INCA).	educational programs, awareness-raising activities and workshops
	SE5: Support ecotourism businesses that prioritize conservation and contribute to preservation (infrastructure improvements, marketing initiatives, or training programs aimed at enhancing the visitor experience while minimizing environmental impact)	financial incentives/ grants
Opportunities to reduce ecosystem degradation	DP1: To stop illegal tree cutting, effective interventions could combine better enforcement of existing law and fines with awareness raising activities	improved law enforcement, patrolling, and fines
	DP2: To reduce livestock farming in areas vulnerable to biodiversity loss, raising awareness on the importance of protecting ecosystems	clear zoning of use vs. non-use areas.
	DP3: Improve infrastructure for trash disposal along riverbank, particularly within protected areas	---
Opportunities to obtain support from ecosystem service beneficiaries	BP1: Tourists and ecotourism businesses benefit from healthy ecosystems and beautiful natural landscapes. Partnerships between NGOs and local business to develop joint initiatives. Ecotourism businesses can contribute financially to these partnerships or tourists could further contribute via fees and/or voluntary schemes.	entry fees, taxes, or on voluntary contributions as a starting point
	BP2: Water users in the communities and downstream benefit from clean and stable water flow and could be interested to contribute (e.g., via a fee added to their monthly water bill)	clear regulations for water usage and fees that align with national policies while reflecting local needs, developing a transparent system for setting and adjusting water tariffs based on consumption and community demands
	BP3: channeling financial support from international donors, local government, businesses, conservation NGOs	a fund
Opportunities to promote innovative activities	I1: Develop support schemes for medicinal plant collectors, including fair trade initiatives, to identify markets for their products and ensure fair compensation	---
	I2: Introduce the concept of the national park municipality in order to promote the marketing of locally traded products as goods sourced from protected areas	pilot project, financing mechanism for channeling a part of revenues to conservation efforts.

Tab 4 Overview of the identified opportunities for policy and finance instruments.

4. Discussion: Policy options to complement the Integrated Management Plan

The study underscores the importance of a robust legal and institutional framework to safeguard the Vjosa River Basin. The 2023 declaration of the Vjosa as Wild River National Park represents a milestone and the Integrated Management Plan (IMP) (Kovarovics et al. 2024) provides an official framework with strategic guidance. However, the current management of ecosystems in and around the national park is not ensuring effective conservation. The opportunities we derived for policy and finance instruments show similarities with the IMP proposals, but also differences. This section formulates policy options based on our analysis, and it explains how they support or complement the IMP.

Policy option #1: Policies and financial support for reforestation efforts need to go beyond park boundaries and buffer zones. This study suggests inclusive strategies involving local communities and other sectors to protect critical buffer zones and a more holistic approach including a broader area beyond park boundaries. This closely aligns with IMP Strategic Objective (SO) #3, which emphasizes the need to afforest/reforest degraded areas both outside and inside park boundaries, with an initial focus on the upper section of the Vjosa River. However, despite IMP's SO #1 of revising Local General Plans (LGPs), it hasn't properly addressed these issues on the local level.

Policy option #2: Strengthen law enforcement and accountability for environmental violations. This analysis stresses the need for better enforcement of conservation laws. IMP equally lists effective law enforcement and patrolling as SO #14. Our assessment of the Përmet area suggests that in cases of criminal offenses and administrative violations, during court proceedings, the municipality could not only pursue criminal penalties but also establish itself as a civil party and seek compensation for damages. In addition, a specialized environmental court system or commission of experts approved by affected stakeholders could be established to improve legal accountability for conservation violations.

Policy option #3: Regulate livestock grazing to mitigate threats to habitats and species. Stricter regulations for livestock grazing (and shelters built on gravel banks) which represent a significant threat to habitat and species, are suggested by both this analysis and IMP.

Policy option #4: Improve staff management and foster collaboration with local agencies. In SO #18, IMP mentions the requirement for staff to manage the park and map the adjacent areas to support conservation efforts. It also highlights the need for this staff to collaborate with local structures for successful conservation of the areas surrounding the park in the Vjosa River basin. This resonates with our results on the necessity of trained personnel to manage and monitor these areas effectively. Given the current lack of collaboration between the two responsible agencies, the local forestry directory and the local office for protected areas, it is crucial to bring these actors to the table.

Policy option #5: Incorporate traditional knowledge in conservation strategies. One of the opportunities identified in this research is the vital role of traditional knowledge in safeguarding native species. Awareness-raising activities and workshops to collect and communicate traditional knowledge on the importance of native species and how to preserve them are needed. This is also addressed in IMP SOs #12 and #17, which aim to increase knowledge and awareness among local communities and promote cultural and natural values.

Policy option #6: Decentralize conservation efforts and empower municipalities. This study identified that conservation efforts are currently centralized within the Ministry of Tourism and Environment and the National Agency for Protected Areas (NAPA). Thus, municipalities like Përmet do not feel a sense of ownership, are less inclined to invest, and show limited engagement. It seems important to delegate some authority and foster a sense of ownership at the municipal level, enabling municipalities to independently initiate conservation actions. The financial resources highlighted in Table #3 could be administered directly through local municipalities, strengthening their involvement.

Policy option #7: Establish a collaborative platform for monitoring and policy implementation of the Vjosa River. An institutionalized platform could bring together local and central actors, aimed at monitoring the condition of the Vjosa River and the implementation of local and national environmental policies and instruments. Local actors include municipalities, forest directorates, and the regional office of the National Agency for Protected Areas (NAPA), while central actors include the line ministry. Civil society organizations should also be involved.

Policy option #8: Diversify Funding Initiatives. Decision No. 774, dated 13.12.2024 stipulates that the Vjosa Protected Area Management Committee (ZAPK Vjosa) will be financed through the state budget and other legal sources. However, it does not specify alternative funding mechanisms. The lack of clear provisions for funding diversification in the law may pose challenges to the long-term financial sustainability of the protected area.

5. Conclusions

The analysis based on the Ecosystem Service Opportunities (ESO) framework identified clear entry points for effective policy strategies and funding options for conservation planning in the Vjosa River Basin. While the results of support many aspects raised by the Integrated Management Plan (IMP) for the Vjosa Wild River National Park (stronger law enforcement and patrolling, regulating illegal livestock grazing, improved staff management and collaboration between local agencies, incorporating traditional knowledge in conservation strategies), this study additionally emphasizes the need for action beyond national park boundaries, decentralization with stronger municipal involvement, establishment of a collaborative platform, and the diversification of funding initiatives more decentralized, inclusive, and economically integrated approaches to conservation. It became clear that the conservation of the Vjosa River Basin is not just an environmental necessity but also a cultural and economic one. Conservation and restoration of forest ecosystems can help not only secure habitat for endangered or threatened species, but also improve water quality through reduced soil erosion and pollution, and generate diverse sources of income from nature-based tourism, apiculture, etc. By leveraging the concrete opportunities for policy and finance instruments identified in this study, and by fostering collaboration among stakeholders, the ecosystems of the Vjosa River Basin can be preserved for future generations and support a sustainable economic development of local communities. Future research on this area could involve assessments of instrument effectiveness and transdisciplinary research could co-design specific proposals for policy and finance instruments.

References

- Agjencia Kombëtare e Zonave të Mbrojtura (2024) Vendim nr. 774, dated December 13, 2024, për shpalljen e zonës së mbrojtur "Park Natyror Korab-Koritnik". <https://akzm.gov.al/wp-content/uploads/2020/07/vendim-2024-12-13-774.pdf>
- Albanian Agricultural and Rural Development Agency (AZHBR) (2024) National scheme 2024: Support for beekeeping. <https://azhbr.gov.al/skema-kombetare-2024-mbeshtetje-per-bletarine/>
- AZHB (2024) Programi – Skemat për pagesat direkte për vitin 2024. https://azhb-rks.net/repository/docs/2024_03_13_035935_Programi-Skemat_per_Pagesat_Direkte_per_vitin_2024.pdf
- AZHBR (2025) Masa 5: Mbështetje për kultivimin e bimëve mjekësore e aromatike. <https://azhbr.gov.al/service/masa-5-mbeshtetje-per-kultivimin-e-bimeve-mjekesore-e-aromatike/>
- Balkan Insight (2024) Albania misused €33 million euros of EU funds, anti-fraud office says. <https://balkaninsight.com/2024/06/21/albania-misused-33-million-euros-of-eu-funds-anti-fraud-office-says/>
- Bashkia Përmet (2020) Plani i zhvillimit të territorit: Bashkia Përmet.
- Bashkia Përmet (2021) Takimi hapës i projektit të financuar nga BE – MAPCULT. <https://bashkiapermet.gov.al/takimi-hapes-i-projektit-te-financuar-nga-be-mapcult/>
- Ecosystem Service Opportunities (n.d.) Ecosystem service opportunities: A practice-oriented framework for identifying economic instruments to enhance biodiversity and human livelihoods. <https://www.es-opportunities.net/>
- Euronews Albania (2024) 80 milionë dollarë për turizmin – BB financon projektin, mbron ujërat e plazheve. <https://euronews.al/80-mln-dollarë-per-turizmin-bb-financon-projektin-mbron-ujerat-e-plazheve/>
- European Commission (2023) IPARD III programme Albania 2021–2027. https://agriculture.ec.europa.eu/system/files/2023-03/ipard-III-programme-albania-2021-27_en.pdf
- EuroNatur (2023) Major success: River Vjosa becomes national park. <https://www.euronatur.org/en/what-we-do/news/major-success-river-vjosa-becomes-national-park>
- EuroNatur (2024) Protest on Albanian Shushica River. <https://www.euronatur.org/en/what-we-do/news/protest-on-albanian-shushica-river>
- Gazeta Tema (2024) Albania seeks UNESCO recognition for Vjosa River National Park. <https://english.gazetatema.net/society/albania-seeks-unesco-recognition-for-vjosa-river-national-park-1336832>
- Hasenauer H, Leiter M, Toromani E (2022) The forest in the Vjosa River Basin: An assessment of the situation. Riverwatch, EuroNatur
- IUCN (2023) Vjosa, one of our last wild rivers, becomes Europe's first Wild River National Park. <https://www.iucn.org/press-release/202303/vjosa-one-our-last-wild-rivers-becomes-europes-first-wild-river-national-park>
- Kovarovics A, Huber M (eds) (2024) Vjosa Wild River National Park: A management plan (2024–2033). E.C.O. Institute of Ecology. <https://akzm.gov.al/wp-content/uploads/2020/07/Chapter-A.-Management-Plan.pdf>
- Lapsi (2024) VOA: Ndryshimi i ligjit i hap rrugë ndërtimeve në zonat e mbrojtura. <https://lapsi.al/2024/02/22/voa-ndryshimi-i-ligjit-i-hap-rruge-ndertimeve-ne-zonat-e-mbrojtura/>
- Meulenbroek P, Egger G, Trautner J, Drescher A, Randl M, Hammerschmied U, Wilfling O, Schabuss M, Zornig H, Graf W (2020) The Vjosa River: A baseline survey on biodiversity, potential impacts, and legal framework for hydropower development. Riverwatch, EuroNatur
- Qendro E (2019) Stakeholder analysis report.
- Reuters (2025) Albania approves luxury resort project linked to Jared Kushner's company. <https://www.reuters.com/business/albania-approves-luxury-resort-project-linked-jared-kushners-company-2025-01-16/>
- Rode J, Wittmer H, Emerton L, Schröter-Schlaack C (2016) Ecosystem service opportunities: A practice-oriented framework for identifying economic instruments to enhance biodiversity and human livelihoods. J Nat Conserv 33:35–47. <https://doi.org/10.1016/j.jnc.2016.07.001>