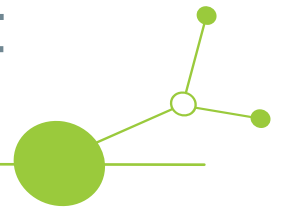


# GUIDANCE TO THE IMPLEMENTATION OF THE ACTION PLAN ON LARGE CARNIVORES



Final version

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# GUIDANCE FOR THE IMPLEMENTATION OF THE ACTION PLAN ON LARGE CARNIVORES

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## 1. Executive Summary

The International Action Plan on Conservation of Large Carnivores and Ensuring Ecological Connectivity in the Carpathians provides a common strategic framework for the conservation and coordinated management of brown bear, grey wolf and Eurasian lynx populations across the Carpathian region. As these species occur in transboundary populations and depend on functional ecological connectivity, their conservation requires harmonised monitoring, shared data systems, coordinated management and strong cooperation among countries, institutions and sectors.

This document supports the revision and implementation of the Action Plan by translating key outcomes of the LECA project into practical recommendations for its updated operational framework. It focuses on the main priorities where coordinated action is most urgently needed: standardised monitoring, digital data management, ecological connectivity, human-large carnivore coexistence, prevention of illegal killing and cross-sectoral cooperation.

The key recommendation is to strengthen harmonised monitoring across all Carpathian countries, with particular attention to transboundary populations and shared interpretation of results. Monitoring should combine camera trapping, non-invasive genetic sampling, telemetry and SCALP-based validation, supported by common protocols and coordinated interpretation of results. Particular attention should be given to transboundary populations, where joint planning, shared data, and comparable methodologies are essential for reliable population assessment and adaptive management.

The document also emphasises the need for interoperable digital tools, including mobile applications, centralised databases, automated reporting dashboards and GIS-based visualisation. These tools should improve data quality, transparency, timeliness of reporting and long-term cooperation among monitoring institutions.

Maintaining ecological connectivity is another core priority. Habitat fragmentation, transport infrastructure, land-use change and emerging physical barriers can negatively affect dispersal, gene flow and population viability. Connectivity, therefore, needs to be systematically integrated into spatial planning, infrastructure development and cross-border conservation measures.

Improving coexistence between people and large carnivores requires a preventive and practical approach. Priority should be given to conflict-risk mapping, livestock protection, reduction of anthropogenic food attractants, effective intervention teams, fair support schemes and long-term stakeholder engagement. These measures should reduce conflicts while strengthening trust among farmers, hunters, foresters, conservation authorities and local communities.

The prevention of illegal killing must be strengthened through better law enforcement capacities, standardised investigation and forensic protocols, wildlife crime databases, poaching hotspot mapping, training and cross-border cooperation. Illegal killing should be addressed as a serious conservation and legal issue requiring coordinated prevention, investigation and prosecution.

The Action Plan adopted by the Carpathian Convention will move from broad strategic objectives toward operational implementation, supported by clear responsibilities, practical tools, timeframes, resources and measurable outputs. This includes clearly defined actions, responsible stakeholders, management tools, supporting resources, funding mechanisms, timeframes and measurable outputs. By applying the LECA results in this way, the Action Plan will become a guiding, action-oriented document for the protection of large carnivores within the broader Carpathian region over the next 10 years.

## 2. Introduction

The **International Action Plan on Conservation of Large Carnivores and Ensuring Ecological Connectivity in the Carpathians** (hereinafter referred to as the *Action Plan*) is a strategic document adopted under the framework of the Carpathian Convention, a transnational multi-sectoral governance platform providing a framework for cooperation and policy integration. It provides a common framework for coordinating the conservation and management of large carnivore populations—particularly the brown bear, grey wolf and Eurasian lynx—across the Carpathian region. The Carpathian Convention and its bodies are responsible for adopting the Action Plan that harmonises national approaches, strengthens transboundary cooperation, and integrates biodiversity conservation with sustainable regional development. It also offers guidance on maintaining and restoring ecological connectivity, mitigating human-carnivore conflicts and applying up-to-date scientific knowledge and data to support adaptive management at both national and regional levels.

Following six years of implementation, the Action Plan is being revised to reflect new scientific knowledge, policy developments, and practical experience. This revision is being carried out through close cooperation between the LECA consortium, project partners, and associated partners. A major contribution to the process comes from the LECA project, whose findings provide the core evidence base for the update and are being directly integrated into the revised Action Plan of the Carpathian Convention.<sup>1</sup> As a result, the project's outcomes will support the practical implementation of biodiversity conservation measures and the long-term protection of the Carpathians. The revision incorporates innovative approaches and recommendations developed within LECA, particularly those validated through the Thematic Guidances and discussed with the Carpathian Convention Working Group on Biodiversity.

In particular, the LECA project contributes to the revision through three main thematic priorities:

- Monitoring harmonisation of large carnivore populations across countries;
- Strengthening measures for the prevention of illegal killing and poaching;
- Improving human-carnivore coexistence.

These priorities are complemented by a broader focus on enhancing cross-border cooperation and coordinated management. In addition to LECA, relevant findings from other initiatives, such as projects NaturaConnect and ForestConnect, are considered to further reinforce the knowledge base on ecological connectivity and integrated landscape planning.

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<sup>1</sup> In this document, the LECA consortium provides evidence-based recommendations for the revision of the Action Plan. However, the final decision on which recommendations are adopted and proposed to member states for legal, political and practical implementation rests with the Carpathian Convention.

## 3. LECA recommendations

### STRATEGIC OBJECTIVE 1

#### Standardise monitoring procedures of large carnivores in the Carpathians

##### LECA recommendation:

It is recommended to strengthen harmonised monitoring by applying and further developing a combined approach that brings together camera trapping, non-invasive genetic sampling, telemetry and data validation based on the SCALP methodology. This integrated use of methods has proven effective and should be further developed and applied across the Carpathian region.

Special attention should be given to transboundary populations, in particular cross-border wolf packs, whose territories extend across national borders. Monitoring should therefore be closely coordinated between countries, including joint planning, synchronised data collection and shared interpretation of results at the population level. Harmonised monitoring frameworks should also support consistent assessment of distribution, reproduction and population dynamics across borders.

To support this, it is important to establish clear and user-friendly systems for data sharing, including centralised databases connected with mobile applications that allow direct data collection in the field. Such systems can significantly improve efficiency, data quality and timeliness of reporting. The use of digital tools, including automated image processing and species identification, should be further promoted. Where appropriate, citizen science approaches can complement professional monitoring and contribute to broader data collection.

Cooperation with key stakeholders, especially the hunting and forestry sectors, protected area authorities, researchers and local communities, should be strengthened. Their active involvement in monitoring, including data collection through camera trapping or field observations, has proven to increase spatial coverage, improve data flow and support trust and long-term collaboration. Monitoring results should be regularly shared with stakeholders to support transparency, joint learning and adaptive management.

### STRATEGIC OBJECTIVE 2

#### Prevent habitat fragmentation and ensure ecological connectivity in the Carpathians

##### LECA recommendation:

It is recommended to address emerging barriers to ecological connectivity, in particular, the impacts of security border fencing on wildlife movement. Recent developments along the borders of Ukraine have highlighted significant risks for large carnivores, especially for species such as the Eurasian lynx, whose populations depend on cross-border dispersal and gene flow. If not adequately mitigated, physical barriers may lead to increased habitat fragmentation and subsequent genetic isolation, which may significantly affect the dynamics and vitality of large carnivore populations.

Monitoring and continuous assessment of the impacts of border fencing on wildlife movement should be prioritised, including the identification of affected corridors and transboundary linkages. Given the evolving nature of this issue, it is essential to systematically track developments and their ecological consequences over time. This topic should also be reflected in future and follow-up projects, which can further analyse impacts, test mitigation measures and provide evidence-based solutions to support the maintenance of ecological connectivity.

## STRATEGIC OBJECTIVE 3

### Improve coexistence between humans and large carnivores

#### LECA recommendation:

It is recommended to strengthen coexistence between humans and large carnivores through a comprehensive, preventive and integrated approach focused on reducing conflict risks and addressing their root causes. These causes often **extend beyond ecology and traditional conservation practice; therefore, an interdisciplinary approach is essential**. Priority should be given to the systematic identification and mapping of conflict hotspots, including areas with frequent livestock depredation and locations with a high presence of anthropogenic attractants. This should combine available damage records with robust monitoring tools to enable targeted and timely interventions.

Preventive measures should be prioritised as the most effective long-term solution. These include the protection of livestock through well-functioning predator-proof electric fencing, preferably combined with livestock guarding dogs and appropriate husbandry practices, as well as the systematic removal or management of anthropogenic food sources to prevent habituation of carnivores, particularly bears, to human environments. Preventing access to such attractants is essential to reduce recurring conflicts and the emergence of conflict individuals.

The effectiveness of these measures should be supported by well-designed and reliable funding and compensation schemes. Financial support should incentivise the proper implementation of preventive measures and, where possible, be linked to their use. At the same time, support schemes should also address the additional costs and workload associated with coexistence, ensuring long-term sustainability and stakeholder acceptance.

Strengthening coexistence further requires the active involvement of key stakeholders. Local and cross-border stakeholder platforms should be established or reinforced to enable dialogue, knowledge exchange and joint problem-solving. The active participation of farmers, hunters, foresters and local communities should be encouraged, including their involvement in designing solutions, monitoring and implementation of measures, which can improve trust, data quality and shared ownership of outcomes.

Finally, continuous awareness-raising and access to practical information on coexistence measures should be ensured. This includes targeted communication, education and advisory support, as well as long-term engagement processes addressing the social dimensions of human-carnivore conflicts.

## STRATEGIC OBJECTIVE 4

### Improve law enforcement with respect to the illegal killing of large carnivores

#### LECA recommendation:

It is recommended to strengthen law enforcement to prevent, investigate and prosecute illegal killing of large carnivores through a more structured, coordinated and evidence-based approach. Effective cooperation between law enforcement authorities, conservation institutions, researchers and other relevant experts is essential, including the establishment of clear communication channels, shared databases and regular exchange of information at both national and cross-border levels.

A key priority is the systematic collection, management and analysis of data related to wildlife crime. This includes combining law enforcement records with monitoring data and local knowledge to identify high-risk areas and patterns of illegal activity. The use of questionnaires and surveys should be further promoted to identify knowledge gaps, training needs and operational challenges, and to better target capacity-building activities.

The role of forensic science should be strengthened, with early involvement of experts and the application of standardised procedures for evidence collection, analysis and documentation. Access to specialised expertise and laboratories is essential to ensure that evidence is reliable and usable in court. In this context, the development of specialised wildlife crime investigators or dedicated units should be supported.

Regular training, seminars and cross-border knowledge exchange should be ensured, with a focus on practical, case-based learning and sharing of best practices. These activities help to build long-term expertise, improve cooperation between institutions and increase the overall effectiveness of investigations.

Law enforcement efforts should be complemented by awareness-raising and active involvement of stakeholders. Engaging local communities, hunters, foresters and other relevant groups, as well as supporting educational activities and awareness-raising campaigns, can improve reporting of illegal activities and contribute to prevention, while also strengthening trust and cooperation with authorities.

## STRATEGIC OBJECTIVE 5

### Improve communication and cooperation between all relevant stakeholders

#### LECA recommendation:

It is recommended to strengthen cross-sectoral and transnational cooperation by establishing continuous and structured collaboration among key stakeholders across the Carpathian region. Identification of key stakeholders should be continuous and periodically updated. Regular cross-border meetings, thematic working groups and joint initiatives should be promoted to enable sustained exchange of knowledge, alignment of approaches and joint development of solutions. It is also advised to conduct quantitative and qualitative inquiries among stakeholders to map their state of knowledge on large carnivores, opinions, attitudes and experiences in order to identify potential trends as well as to address potential challenges or issues they raise. Particular emphasis should be placed on fostering synergies between regions, including cooperation between the Carpathian and Alpine regions, as well as between relevant projects, ensuring that knowledge, tools and tested practices are effectively shared, transferred and further developed. Such coordinated and long-term cooperation is essential for improving the consistency, efficiency and overall impact of large carnivore conservation efforts.

## 4. Action Plan

In the previous section, we have formulated recommendations to five strategic objectives, however, the Action Plan further provides concrete actions and their detailed descriptions to three of these objectives. We provide detailed characterisation only to the strategic objectives that directly derive from the LECA project and that were validated within it, namely objectives 1,3 and 4.

<b>STRATEGIC OBJECTIVE 1</b>	
<b>Standardise monitoring procedures of large carnivores in the Carpathians</b>	
<p><b>ACTION 1.1</b></p> <p>TITLE AND DESCRIPTION OF THE RELEVANT ACTION</p>	<ul style="list-style-type: none"> <li>&gt; <b>Development and implementation of standardised monitoring systems for large carnivores</b></li> <li>&gt; Develop and implement standardised monitoring systems for each of the large carnivore species (brown bear, grey wolf, Eurasian lynx) in the Carpathians, including coordinated monitoring of transboundary populations, based on scientifically robust and harmonised methodologies, including camera trapping, non-invasive genetic sampling, telemetry and SCALP-based data validation, allowing the continuous assessment of the population status and effective sharing of information among relevant institutions (e.g. governmental, academic) and the public.</li> </ul>
<p>RESULT</p>	<ul style="list-style-type: none"> <li>&gt; Improved and accurate data collection through harmonised monitoring protocols across the Carpathians, as well as increased comparability and reliability of monitoring data, improved coordination of transboundary monitoring, increased transparency on acquisitions and interpretation, and uncertainties about the status and trend of large carnivores' populations reduced.</li> </ul>
<p>IMPLEMENTATION TOOLS AND MANAGEMENT INSTRUMENTS</p>	<ul style="list-style-type: none"> <li>&gt; Standardised Carpathian monitoring protocol</li> <li>&gt; Species-specific monitoring manuals</li> <li>&gt; Implementation plan</li> <li>&gt; Cross-border coordination mechanism</li> <li>&gt; Monitoring working groups</li> <li>&gt; SCALP-based validation protocols</li> <li>&gt; Camera-trapping</li> <li>&gt; Non-invasive genetic sampling</li> <li>&gt; Telemetry protocols</li> <li>&gt; Mobile field data collection tools</li> </ul>

	<ul style="list-style-type: none"> <li>&gt; Data quality assurance protocol; reporting templates; population status and trend assessment framework; training programme; intercalibration exercises; data-sharing agreements; annual monitoring review meetings.</li> </ul>
RESPONSIBLE INSTITUTION	<ul style="list-style-type: none"> <li>&gt; National public authorities responsible for nature conservation and large carnivore monitoring, in cooperation with the Carpathian Convention Working Group on Biodiversity, Large Carnivore Expert Group, national monitoring agencies and scientific institutions. Cross-border coordination should be ensured by competent national authorities and the Carpathian Convention bodies.</li> </ul>
KEY ACTORS	<ul style="list-style-type: none"> <li>&gt; Public authorities / governmental bodies</li> <li>&gt; Scientific &amp; expert institutions</li> <li>&gt; Hunting &amp; forestry sector</li> <li>&gt; NGOs &amp; conservation organisations</li> <li>&gt; Local stakeholders</li> <li>&gt; Cross-border &amp; international actors</li> <li>&gt; Public &amp; citizen science actors</li> </ul>
SUPPORTING RESOURCES	<ul style="list-style-type: none"> <li>&gt; LECA monitoring guidance</li> <li>&gt; LECA pilot &amp; reference area results</li> <li>&gt; LECA cross-border recommendations</li> </ul>
ESTIMATED FINANCIAL COSTS	<ul style="list-style-type: none"> <li>&gt; LECA cross-border recommendations High: EUR 2.0-5.0 million for 2026-2035 at the Carpathian level. Costs include harmonised protocols, camera trapping, genetic sampling, telemetry, SCALP validation, field equipment, training, intercalibration exercises, annual monitoring reviews and cross-border coordination.</li> </ul>
FUNDING	<ul style="list-style-type: none"> <li>&gt; State budget</li> <li>&gt; Project-based</li> </ul>
TIMEFRAME	<ul style="list-style-type: none"> <li>&gt; 2026 - 2035</li> </ul>
PRIORITY	<ul style="list-style-type: none"> <li>&gt; High / immediate</li> </ul>
<b>ACTION 1.2</b> TITLE AND DESCRIPTION OF THE RELEVANT ACTION	<ul style="list-style-type: none"> <li>&gt; <b>Development of digital tools for effective monitoring, data collection, validation and reporting</b></li> </ul>

	<ul style="list-style-type: none"> <li>&gt; Develop interoperable digital tools and data-sharing systems for large carnivore monitoring in the Carpathians, including centralised databases and mobile applications supporting field data collection, data validation and reporting.</li> </ul>
RESULT	<ul style="list-style-type: none"> <li>&gt; Improved efficiency, interoperability and timeliness of monitoring data collection, sharing and reporting across the Carpathian region.</li> </ul>
IMPLEMENTATION TOOLS AND MANAGEMENT INSTRUMENTS	<ul style="list-style-type: none"> <li>&gt; Mobile application for field data collection, e.g. CarniTrack</li> <li>&gt; Centralised Carpathian monitoring database, e.g. CCIBIS</li> <li>&gt; Data management and governance plan</li> <li>&gt; Interoperability framework</li> <li>&gt; Standardised digital data-entry forms</li> <li>&gt; Metadata standards and data dictionaries</li> <li>&gt; Data validation workflow</li> <li>&gt; Automated reporting dashboards</li> <li>&gt; GIS visualisation tools</li> <li>&gt; Data quality control protocol</li> <li>&gt; Cross-border data-sharing agreements</li> <li>&gt; User training modules</li> <li>&gt; Technical maintenance and data security protocols</li> </ul>
RESPONSIBLE INSTITUTION	<ul style="list-style-type: none"> <li>&gt; Carpathian Convention bodies / WG Biodiversity, in cooperation with national monitoring authorities, research institutions, protected area managers and appointed IT/data management providers. One technical coordinating institution should be designated for database governance and long-term maintenance.</li> </ul>
KEY ACTORS	<ul style="list-style-type: none"> <li>&gt; Governmental authorities responsible for monitoring</li> <li>&gt; Research institutions</li> <li>&gt; NGOs</li> <li>&gt; Protected area managers</li> <li>&gt; IT and data management experts</li> </ul>
SUPPORTING RESOURCES	<ul style="list-style-type: none"> <li>&gt; Existing national monitoring databases</li> <li>&gt; EU data standards and digital monitoring tools</li> </ul>
ESTIMATED FINANCIAL COSTS	<ul style="list-style-type: none"> <li>&gt; Medium-high: EUR 1.5-3.5 million for development, testing and deployment, plus long-term maintenance. Costs include mobile applications, centralised database, dashboards, GIS visualisation, interoperability standards, cybersecurity, training and technical support.</li> </ul>

FUNDING	<ul style="list-style-type: none"> <li>&gt; EU funding programmes</li> <li>&gt; State budget</li> <li>&gt; Project-based funding</li> </ul>
TIMEFRAME	<ul style="list-style-type: none"> <li>&gt; 2026 - 2035</li> </ul>
PRIORITY	<ul style="list-style-type: none"> <li>&gt; High / enabling priority</li> </ul>
<b><u>STRATEGIC OBJECTIVE 3</u></b>	<b>Improve coexistence of humans with large carnivores</b>
<b>ACTION 3.1</b> TITLE AND DESCRIPTION OF THE RELEVANT ACTION	<ul style="list-style-type: none"> <li>&gt; <b>Promotion of best practices on managing and reducing conflicts between human and large carnivores</b></li> <li>&gt; Promote the collection and exchange of best practices on managing and reducing conflicts between humans and large carnivores among the Carpathian countries and other mountain and neighboring regions, including preventive measures, conflict-risk assessment, and sharing of strengths and weaknesses in administrative procedures, legislation and practical implementation, facilitated through dedicated workshops, stakeholder exchanges and field visits.</li> </ul>
RESULT	<ul style="list-style-type: none"> <li>&gt; The Carpathian stakeholders benefit from and contribute to international knowledge exchange on managing and reducing human-large carnivore conflicts. The sharing and implementation of preventive measures, know-how, methodologies, and best and less effective practices are enhanced.</li> </ul>
IMPLEMENTATION TOOLS AND MANAGEMENT INSTRUMENTS	<ul style="list-style-type: none"> <li>&gt; Best-practice exchange platform</li> <li>&gt; Thematic workshops and field visits</li> <li>&gt; Stakeholder engagement plan</li> <li>&gt; Conflict-risk assessment framework</li> <li>&gt; Case study database</li> <li>&gt; Reporting templates</li> <li>&gt; Annual review meetings</li> </ul>
RESPONSIBLE INSTITUTION	<ul style="list-style-type: none"> <li>&gt; Carpathian Convention Secretariat / WG Biodiversity / Large Carnivore Expert Group, in cooperation with national nature conservation authorities, research institutions, NGOs, international organisations and stakeholder platforms.</li> </ul>
KEY ACTORS	<ul style="list-style-type: none"> <li>&gt; Political parties to the Convention</li> <li>&gt; Large Carnivore Expert Group</li> </ul>

	<ul style="list-style-type: none"> <li>&gt; WG Biodiversity</li> <li>&gt; Research institutions</li> <li>&gt; International organisations</li> <li>&gt; NGOs</li> <li>&gt; Science for the Carpathians</li> </ul>
SUPPORTING RESOURCES	<ul style="list-style-type: none"> <li>&gt; LECA guidance conflict prevention</li> <li>&gt; LECA pilot &amp; reference area results</li> <li>&gt; LECA cross-border recommendations</li> </ul>
ESTIMATED FINANCIAL COSTS	<ul style="list-style-type: none"> <li>&gt; Medium: EUR 300,000-800,000. Costs include thematic workshops, field visits, stakeholder exchanges, best-practice platform, case-study database, translation, reporting templates and annual review meetings.</li> </ul>
FUNDING	<ul style="list-style-type: none"> <li>&gt; State budget</li> <li>&gt; Project-based</li> </ul>
TIMEFRAME	<ul style="list-style-type: none"> <li>&gt; Ongoing</li> </ul>
PRIORITY	<ul style="list-style-type: none"> <li>&gt; Medium-high</li> </ul>
<p><b>ACTION 3.2</b></p> <p>TITLE AND DESCRIPTION OF THE RELEVANT ACTION</p>	<ul style="list-style-type: none"> <li>&gt; <b>Development, testing and promotion of effective prevention and mitigation measures</b></li> <li>&gt; Develop, test, and promote effective preventive and mitigation measures to minimise human-large carnivore conflicts according to diverse territorial systems and socioeconomic conditions. Establish a joint methodology and best practices for reducing livestock depredation, restoring and enhancing valuable forest and non-forest habitats, improving waste management, and reduction of anthropogenic food attractants.</li> </ul>
RESULT	<ul style="list-style-type: none"> <li>&gt; Conflicts between humans and large carnivores are substantially minimised by effective preventive measures reducing livestock depredation, access to anthropogenic food attractants and the emergence of conflict individuals.</li> </ul>
IMPLEMENTATION TOOLS AND MANAGEMENT INSTRUMENTS	<ul style="list-style-type: none"> <li>&gt; Prevention-measure implementation plan</li> <li>&gt; Pilot-site testing protocols</li> <li>&gt; Demonstration sites</li> <li>&gt; Livestock-protection guidelines</li> <li>&gt; Conflict hotspot mapping</li> </ul>

	<ul style="list-style-type: none"> <li>&gt; Damage reporting system</li> <li>&gt; Effectiveness monitoring framework</li> <li>&gt; Cost-effectiveness assessment tool</li> <li>&gt; Training modules.</li> </ul>
RESPONSIBLE INSTITUTION	<ul style="list-style-type: none"> <li>&gt; National authorities responsible for nature conservation, agriculture and rural development, together with protected area administrations, local authorities, farmers' organisations, NGOs and research institutions. Implementation should be coordinated nationally, with methodological alignment through the Carpathian Convention.</li> </ul>
KEY ACTORS	<ul style="list-style-type: none"> <li>&gt; Political parties to the Convention</li> <li>&gt; Large Carnivore Expert Group</li> <li>&gt; WG Biodiversity</li> <li>&gt; Research institutions</li> <li>&gt; International organisations</li> <li>&gt; NGOs</li> <li>&gt; Protected area managers</li> </ul>
SUPPORTING RESOURCES	<ul style="list-style-type: none"> <li>&gt; LECA guidance conflict prevention</li> <li>&gt; LECA pilot &amp; reference area results</li> <li>&gt; LECA cross-border recommendations</li> <li>&gt; Strategic Action Plan with Adaptation Actions and Climate Resilience-Enhancing Forest Management Practices for Protected Areas</li> </ul>
ESTIMATED FINANCIAL COSTS	<ul style="list-style-type: none"> <li>&gt; Very high: EUR 5.0-15.0 million or more, depending on the scale of implementation. Costs include predator-proof fencing, livestock guarding dogs, demonstration sites, waste-management measures, conflict hotspot mapping, damage reporting systems, effectiveness monitoring, advisory services and support schemes for farmers.</li> </ul>
FUNDING	<ul style="list-style-type: none"> <li>&gt; State budget</li> <li>&gt; Project-based</li> </ul>
TIMEFRAME	<ul style="list-style-type: none"> <li>&gt; 2026 - 2035</li> </ul>
PRIORITY	<ul style="list-style-type: none"> <li>&gt; Very high / urgent</li> </ul>
<b>ACTION 3.3</b> TITLE AND DESCRIPTION OF THE RELEVANT ACTION	<ul style="list-style-type: none"> <li>&gt; <b>Establishment of coordinated intervention teams and conflict response protocols</b></li> </ul>

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	<ul style="list-style-type: none"> <li>&gt; Establish and build institutional and operational capacities of professional intervention teams to respond quickly to negative human-large carnivore interactions, using preferably non-lethal methods where applicable, and support the development of protocols, conflict hotspot identification and targeted response measures for ensuring consistent and effective interventions.</li> </ul>
RESULT	<ul style="list-style-type: none"> <li>&gt; Human-large carnivore conflicts are properly addressed and responded to in a timely, coordinated and effective manner, particularly in areas with recurrent conflicts.</li> </ul>
IMPLEMENTATION TOOLS AND MANAGEMENT INSTRUMENTS	<ul style="list-style-type: none"> <li>&gt; Intervention team operational protocol</li> <li>&gt; Standard operating procedures</li> <li>&gt; Rapid response mechanism</li> <li>&gt; Incident database</li> <li>&gt; Conflict hotspot tool</li> <li>&gt; Non-lethal intervention toolbox</li> <li>&gt; Training and certification programme</li> <li>&gt; Inter-agency coordination protocol</li> <li>&gt; Post-intervention evaluation forms</li> </ul>
RESPONSIBLE INSTITUTION	<ul style="list-style-type: none"> <li>&gt; National nature conservation agencies or competent governmental authorities, with operational participation of local authorities, protected area administrations, veterinary services, police where relevant, and trained intervention teams.</li> </ul>
KEY ACTORS	<ul style="list-style-type: none"> <li>&gt; Political parties</li> <li>&gt; Relevant governmental agencies</li> <li>&gt; Local authorities</li> </ul>
SUPPORTING RESOURCES	<ul style="list-style-type: none"> <li>&gt; LECA guidance conflict prevention</li> <li>&gt; LECA pilot &amp; reference area results</li> <li>&gt; LECA cross-border recommendations</li> <li>&gt; LECA national recommendations</li> <li>&gt; Strategic Action Plan with Adaptation Actions and Climate Resilience-Enhancing Forest Management Practices for Protected Areas</li> </ul>
ESTIMATED FINANCIAL COSTS	<ul style="list-style-type: none"> <li>&gt; High: EUR 2.0-6.0 million. Costs include staff, training and certification, vehicles, field equipment, non-lethal intervention tools, incident database, rapid response mechanisms, communication protocols and post-intervention evaluation.</li> </ul>
FUNDING	<ul style="list-style-type: none"> <li>&gt; State budget</li> </ul>

	> Project-based
TIMEFRAME	> 2026 - 2035
PRIORITY	> High
<b><u>STRATEGIC OBJECTIVE 4</u></b>	> <b>Improve law enforcement with respect to illegal killing of large carnivores</b>
<b>ACTION 4.1</b> TITLE AND DESCRIPTION OF THE RELEVANT ACTION	<ul style="list-style-type: none"> <li>&gt; <b>Strengthening institutional and Operational Capacities for Wildlife Crime Enforcement</b></li> <li>&gt; Establish and build institutional and operational capacities of law enforcement agencies to improve the effectiveness of poaching prevention and law enforcement with respect to illegal killings of large carnivores, by researching and understanding local causes and patterns of illegal killings, harmonising investigation and forensic protocols, systematic collection and analysis of wildlife crime data, and investing more resources into investigation and activities preventing illegal killings.</li> </ul>
RESULT	> Illegal killings of large carnivores are considered a serious violation of law, institutional capacities for investigation and prosecution are strengthened, and awareness concerning the penalties and legal consequences of illegal killing throughout the society is improved.
IMPLEMENTATION TOOLS AND MANAGEMENT INSTRUMENTS	<ul style="list-style-type: none"> <li>&gt; Wildlife crime prevention action plan</li> <li>&gt; Standardised investigation and forensic protocols</li> <li>&gt; Illegal killing incident database</li> <li>&gt; Poaching hotspot mapping</li> <li>&gt; Inter-agency coordination mechanism</li> <li>&gt; Enforcement training programme</li> <li>&gt; Annual enforcement review</li> </ul>
RESPONSIBLE INSTITUTION	> National law enforcement agencies, in cooperation with governmental bodies responsible for nature conservation, prosecutors, forensic laboratories, research institutions and local authorities. Coordination should be supported by national contact points and, where relevant, Carpathian Convention structures.
KEY ACTORS	> Parties - relevant national law enforcement agencies and governmental bodies responsible for nature conservation

	<ul style="list-style-type: none"> <li>&gt; Research institutions</li> <li>&gt; Local authorities</li> </ul>
SUPPORTING RESOURCES	<ul style="list-style-type: none"> <li>&gt; LECA poaching prevention guidance</li> <li>&gt; LECA pilot &amp; reference area results</li> <li>&gt; LECA cross-border recommendations</li> <li>&gt; LECA national recommendations</li> </ul>
ESTIMATED FINANCIAL COSTS	<ul style="list-style-type: none"> <li>&gt; High: EUR 2.0-7.0 million. Costs include specialised training, forensic protocols, wildlife crime databases, poaching hotspot mapping, investigation equipment, expert support, inter-agency coordination and awareness-raising on legal consequences.</li> </ul>
FUNDING	<ul style="list-style-type: none"> <li>&gt; State budget</li> </ul>
TIMEFRAME	<ul style="list-style-type: none"> <li>&gt; 2026 - 2035</li> </ul>
PRIORITY	<ul style="list-style-type: none"> <li>&gt; Very high / urgent</li> </ul>
<b>ACTION 4.2</b> TITLE AND DESCRIPTION OF THE RELEVANT ACTION	<ul style="list-style-type: none"> <li>&gt; <b>Transboundary law enforcement cooperation for preventing illegal killing of large carnivores</b></li> <li>&gt; Promote and enhance cross-border cooperation of law enforcement agencies among the Carpathian countries, including regular exchange of information, training, seminars and best practices on preventing, investigating and prosecuting illegal killings.</li> </ul>
RESULT	<ul style="list-style-type: none"> <li>&gt; Communication and exchange among the relevant law-enforcement agencies from the Carpathian countries is established and functioning.</li> </ul>
IMPLEMENTATION TOOLS AND MANAGEMENT INSTRUMENTS	<ul style="list-style-type: none"> <li>&gt; Cross-border cooperation protocol</li> <li>&gt; Regular coordination meetings</li> <li>&gt; Joint training and simulation exercises</li> <li>&gt; Law-enforcement contact-point network</li> <li>&gt; Wildlife crime information-sharing mechanism</li> <li>&gt; Shared incident database</li> <li>&gt; Harmonised reporting templates</li> <li>&gt; Memoranda of understanding</li> <li>&gt; Annual enforcement seminar.</li> </ul>

RESPONSIBLE INSTITUTION	> National law enforcement agencies of the Parties, coordinated through appointed cross-border contact points, with support from the Carpathian Convention, relevant ministries, research institutions and NGOs.
KEY ACTORS	> Parties - relevant national law enforcement agencies > Research institutions > NGOs
SUPPORTING RESOURCES	> LECA poaching prevention guidance > LECA pilot & reference area results > LECA cross-border recommendations > LECA national recommendations
ESTIMATED FINANCIAL COSTS	> Medium: EUR 500,000-1.5 million. Costs include coordination meetings, joint training, simulation exercises, shared reporting templates, information-sharing mechanisms, memoranda of understanding and annual enforcement seminars.
FUNDING	> State budget > Project-based
TIMEFRAME	> Ongoing
PRIORITY	> High

## 5. Conclusion

The revision of the International Action Plan on Conservation of Large Carnivores and Ensuring Ecological Connectivity in the Carpathians is an important opportunity to strengthen the practical implementation of large carnivore conservation across the region. The conservation of brown bear, grey wolf and Eurasian lynx cannot be effectively addressed through isolated national measures alone, because their populations, dispersal routes, ecological corridors and conflict dynamics frequently extend across administrative and national borders.

The recommendations presented in this document highlight the need to move from general strategic objectives towards a more operational and coordinated implementation framework. Harmonised monitoring, interoperable digital tools, common data standards and regular cross-border exchange are essential for producing reliable population assessments and supporting adaptive management. The combined use of camera trapping, non-invasive genetic sampling, telemetry and SCALP-based validation should become a core element of large carnivore monitoring in the Carpathians.

Maintaining ecological connectivity remains fundamental for the long-term viability of large carnivore populations. Habitat fragmentation, transport infrastructure, land-use change and emerging physical barriers may limit dispersal and gene flow, especially in smaller or more vulnerable populations. Connectivity therefore needs to be fully integrated into spatial planning, infrastructure development, protected area management and transboundary conservation actions.

Coexistence with large carnivores requires preventive, practical and socially acceptable measures. Effective livestock protection, reduction of anthropogenic food attractants, conflict hotspot mapping, rapid response mechanisms, fair support schemes and stakeholder engagement should form the basis of future conflict prevention. Long-term success will depend not only on technical measures, but also on trust, transparent communication and cooperation with farmers, hunters, foresters, local communities and public authorities.

The prevention of illegal killing must become a stronger operational priority. This requires trained personnel, standardised investigation and forensic protocols, wildlife crime databases, poaching hotspot mapping, inter-agency cooperation and effective cross-border exchange. Illegal killing should be addressed as a serious conservation and legal issue that directly affects population recovery and long-term viability.

Overall, the Action Plan aims to provide clear actions, identify responsible stakeholders, practical management tools, supporting resources, funding mechanisms, timeframes and measurable outputs. The Action Plan adopted by the Carpathian Convention will secure a move from broad strategic objectives toward their operational implementation. By integrating the outcomes of the LECA project and relevant complementary initiatives, the Action Plan can become a stronger and more applicable instrument for improving large carnivore conservation, reducing conflicts, strengthening law enforcement and safeguarding ecological connectivity across the Carpathians.