

Convention on the Conservation of Migratory Species of Wild Animals



First Range State Meeting for the Persian Leopard

Tbilisi, Georgia, 20 – 22 September 2022

UNEP/CMS/PL-RS1/Outcome

RANGE-WIDE STRATEGY FOR THE CONSERVATION OF THE PERSIAN LEOPARD

List of abbreviations

Abbreviation	Full title
BfN INA	International Academy for Nature Conservation of the German Federal Agency for Nature Conservation
CAMI	Central Asian Mammals Initiative (of CMS)
Cat SG	IUCN SSC Cat Specialist Group
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora (of the United Nations)
CMS	Convention on the Conservation of Migratory Species of Wild Animals (of the United Nations)
GO	Governmental organisation
EAZA	European Association of Zoos and Aquaria
EEP	EAZA Ex-situ Breeding Programme
IGO	Inter-governmental organisation
IUCN	International Union for Conservation of Nature
MEA	Multilateral Environmental Agreement
METT	Management Effectiveness Tracking Tool
MoU	Memorandum of Understanding
NAP	National Action Plan
NGO	Non-governmental organisation
PA	Protected Area
POW	Programme of Work (here of CMS CAMI)
SSC	Species Survival Commission (of IUCN)
SG	Specialist Group of IUCN SSC

1. Introduction

The Persian Leopard or *Panthera pardus tulliana*, which is at present considered to include *Panthera pardus saxicolor* and *ciscaucasica* (according to Kitchener et al 2017) is a sub-species of the Leopard (*Panthera pardus*), which occurs in the middle East, Central and South Asia. Eleven countries were identified by the IUCN Species Survival Commission's Cat Specialist Group as the Range States of the subspecies. These are: Afghanistan, Armenia, Azerbaijan, Georgia, Islamic Republic of Iran, Iraq, Kazakhstan, Pakistan, the Russian Federation, Türkiye, Turkmenistan and Uzbekistan. Distribution of the Persian Leopard and the sub-division of the distribution into metapopulations is mapped in Figure 1. Presence of resident Persian Leopards is not confirmed in some of these Range States (as of November 2022), such as Kazakhstan, Türkiye, and Uzbekistan, but recolonization by dispersing animals from neighboring countries is considered likely. The common name, Persian Leopard, was agreed to be used in this document, since it constitutes the local name of the globally largest population of the subspecies, which is found in Iran. In national languages common names of the sub-species include:

- (Arabic) نمر فارسي/ نمر الأناضولي/ نمر القوقازي/ نمر الإيراني •
- hnվազ, ընձառյուծ (Armenian)
- Ön Asiya bəbiri (Azeri),
- (Farsi/ Dari) پلنگ ایرانی/ پلنگ فارسی
- ჯიქი/ლეოპარდი (Georgian)
- Оңтүстік-Батыс Азия қабыланы (Kazakh)
- لنگی فارسی (Kurdish) پلنگی
- переднеазиатский леопард (Russian)
- anadolu Parsi (Turkish)
- alaja gaplan (Turkmen)
- (Urdu) فارسى تيندوا

Most populations of the Persian Leopard are transboundary, except for some occurring in the Islamic Republic of Iran and therefore the need for a range-wide strategy for the conservation of the species was identified at the second Meeting of the Range States to the Central Asian Mammals Initiative (CAMI), during which adding the Persian Leopard to the CAMI and of the relevant activities to the associated CAMI Programme of Work (CAMI POW) was proposed. CMS Resolution 11.24 (Rev.COP13), containing the CAMI POW was, accordingly, revised in 2020 by CMS COP13 to include Measure 19.1 Develop a range-wide strategy for the conservation of the Persian Leopard (inclusive of other non-CAMI Range States, i.e., Armenia, Azerbaijan, Georgia, Iraq and Türkiye) and update national strategies and conservation action plans.

Based on this mandate, the CMS Secretariat in cooperation with and funding from the International Academy for Nature Conservation of Germany's Federal Agency for Nature Protection (BfN INA) commissioned the development of the draft range-wide Strategy. The document was developed in a series of online workshops taking place in the spring of 2022 under the leadership of the IUCN SSC Cat SG Co-chairs. The workshops were attended by Cat SG members and other experts from all Persian Leopard Range States (see UNEP/CMS/CAMI/RS-PL1/Inf.1/Rev.1 for details). Information on the conservation status of Persian Leopard populations and threats to their survival had been compiled in the Cat News Special Issue on the Persian Leopard and was used to inform the drafting process. This information is summarized in the Overview Report on the Conservation Status of the Persian Leopard available in English, Persian and Russian (UNEP/CMS/CAMI/RS-PL1/Inf.2/Rev.1).

The CMS Secretariat shared the draft Strategy with Range State representatives for their comments on 7 July 2022 by email. Comments received by 10 August 2022 were integrated into the draft. At the first Persian Leopard Range State Meeting taking place on 20-22 September 2022 in Tbilisi, Georgia, the draft document was discussed and revised. The final Range-wide Strategy for the Conservation of the Persian Leopard as can be seen below was endorsed by the Meeting

participants. The Report of the first Persian Leopard Range State Meeting can be consulted for details of the revision process at the meeting.

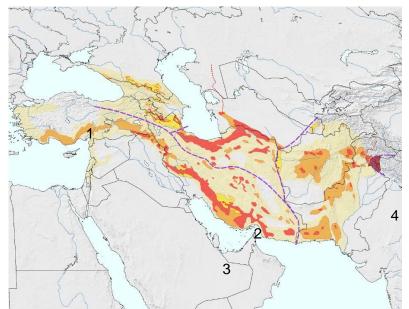


Figure 1. Distribution of the Persian Leopard (Panthera pardus tulliana) in past and present times according to IUCN Red List distribution categories: red, extant; orange, possibly extant; yellow, possibly extinct; light yellow, extinct. Delineation of the regions and metapopulations: 1 = Caucasus (including territories of: Armenia, Azerbaijan, Georgia, Islamic Republic of Iran, the Russian Federation, Türkiye), 2 = Alborz-Kopet Dagh (Islamic Republic of Iran, Kazakhstan, Turkmenistan, Uzbekistan), 3 = Zagros Islamic Republic of Iran, Iraq, Türkiye) 4 = eastern range (Afghanistan, Pakistan, Tajikistan, Uzbekistan).

2. Range-Wide Strategy for the Conservation of the Persian Leopard (2023 - 2032)

Vision: Viable populations of Persian Leopard range across transboundary landscapes in healthy ecosystems, coexisting with and valued by people.

Goal: To ensure coordinated action for the conservation of the Persian Leopard, its key wild prey species and habitats across its historic range by strengthening coordination and cross-border cooperation, sustainable use of natural resources and coexistence with people.

Objectives support reaching the Goal and directly address important threats and drivers; **Results** are the concrete achievements or direct outcomes needed to reach every Objective. Results are the direct outcome of the implementation of a Logical Framework (LogFrame) and should be SMART (Specific, Measurable, Achievable, Relevant and Time-bound); **Activities = Actions** achieve each Result, including a **Timeline, Actor, Indicator** and a rough **Budget.**

Result	Activity	Actor	Indicator	Timeline	Cost (USD)	CAMI POW	Priority ¹		
Theme 1: Conservation and sustainable	management of the Persian Leopard and ke	ey wild prey species.							
Objective 1: To increase the viability of the	Objective 1: To increase the viability of the Persian Leopard and key wild prey populations across the range and ensure their recovery in priority areas ² .								
Result 1.1 Priority areas including cross border habitats are identified, properly managed and protected to secure the existence of viable populations, safe movements and residence of Persian Leopard individuals by 2028 (see Results 5.1 & 5.2).	Activity 1.1.1.a Review recent information and available data on: climate change predictions, habitat and Persian Leopard occurrence in the Range States, including historical data in local languages and identify priority. areas, research and conservation needs to secure viable Persian Leopard populations in these priority areas.	NGOs, research and GOs, invited experts and local/regional stakeholders	Report and map of priority Persian Leopard habitats is compiled	2025	10,000 per country	1.3, 19.2, 19.5	3		
	Activity 1.1.1.b Based on the climate change predictions and the gathered habitat and occurrence information, conduct a species climate vulnerability assessment and include the resulting climate change considerations in all activities, where necessary.	NGOs, research and GOs, invited experts and local/regional stakeholders	Species Vulnerability Assessment report, including predictive maps and changes in Persian Leopard habitat is compiled	2025	TBD		3		

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¹ Rounded up average of the priority scores assigned to the Activities for each Persian Leopard Range State by the experts participating in the drafting of the strategy (see UNEP/CMS/CAMI/RS-PL1/Inf.1/Rev.1 for details) or scores assigned by the first Persian Leopard Range States Meeting Participants, with the following levels of priority: 1- low; 2-medium; 3-high).

² Priority area means an area of priority for conservation of the Persian Leopard.

Result	Activity	Actor	Indicator	Timeline	Cost (USD)	CAMI POW	Priority ¹
	Activity 1.1.2 Organise workshops to develop best-practice management guides for priority areas, and disseminate to responsible authorities and local / regional stakeholders to ensure implementation and policy uptake (see Activity 1.1.4).	NGOs, GOs, experts and local/regional stakeholders	Workshop performed, reports / road map developed, area- specific priority conservation measures identified, and relevant institutions are informed	2025	TBD		2
	Activity 1.1.3 Develop and enhance guidance on national and regional / cross-border PAs³ for identifying new PAs and wildlife corridors in regard to Persian Leopard conservation needs in a workshop as in Activity 1.1.2 (see Activity 5.2.1).		Workshop took place, national and regional / cross border PA guidelines for including Persian leopard considerations are developed and approved	2028	TBD by organisations		2
	Activity 1.1.4 Promote the inclusion of PAs for the Persian Leopard and conservation needs for the species in national policies (see Activity 1.1.2).		Persian Leopard PAs and Persian Leopard conservation is included in national policies	2030	TBD		2
	Activity 1.1.5 Regularly report on status of the identified cross-border priority areas including state of habitats, threats, management effectiveness and protection status.	Range States (GOs), experts, NGOs	Regular reporting on transboundary priority areas takes place	2028	TBD		3
Result 1.2 Viable and interconnected (sub) populations of Persian Leopard exist in priority areas of at least one region / metapopulation by 2030 (see Results 5.3 & 11.3).	Activity 1.2.1 Promote standardized and methodologically advanced approaches to monitor Persian Leopard population viability and connectivity (camera-trapping, genetic analysis, disease screening etc.) based on the monitoring standards defined under Activities 3.3.1 & 3.3.2.	NGOs, scientific and research organisations, PA personnel, wildlife conservation authorities and local communities	The programme is developed and approved. Field staff is trained, and the programme is initiated and running	2028	TBD	19.7, 19.8	3
	Activity 1.2.2 Conduct surveys and regular monitoring (applying the guidelines developed under Activity 3.3.1) in priority Persian Leopard areas (see Activities 5.1.2 & 5.2.1).	NGOs, GOs, experts and local / regional stakeholders	Monitoring and survey report produced	2032	TBD 19.	19.7	3

³ PAs for the purposes of this document are defined as any area-based conservation measures, e.g. IUCN categories, OECMs, any other gazetted conserved areas.

Result	Activity	Actor	Indicator	Timeline	Cost (USD)	CAMI POW	Priority ¹
	Activity 1.2.3 Conduct an international technical workshop to identify key viable and interconnected subpopulations.	IUCN, CMS, GOs, experts	Workshop took place, map on key viable and interconnected subpopulations is available	2028	TBD	19.7	3
	Activity 1.2.4 Establish a programme for caretakers and rangers in at least one region / metapopulation ⁴ to monitor and protect Persian Leopard and habitats (see Activity 1.2.2).	NGOs, GOs, PA personnel, local communities and other local/regional stakeholders	Programme is established and operating	2028	TBD	19.6, 19.7	2
	Activity 1.2.5 Develop and implement recommendations to achieve and/or conserve viable and interconnected (sub)populations of Persian Leopard in priority areas for at least one region / metapopulation.		Report with recommendations to achieve and / or conserve viable and interconnected Persian Leopard (sub)populations in priority areas and report on implementation of these recommendations are available.	2030	TBD	19.2, 19.4,1 9.5	2
	Activity 1.2.6 Conduct national legislation gap analyses (e.g. legislation on conservation, hunting, etc.) with regard to the conservation of Persian Leopard and other CAMI species sharing the same habitat or similar threats and promote updates of legislation, as needed, with national institutions (parliament, government; see Objective 10).	NGOs, governmental agencies, and experts	Laws, bylaws and related regulations adapted according to gap analysis report.	2024	TBD	2.1, 5.14, 5.15	2
	Activity 1.2.7 Secure resources to enforce the (updated) legislation for Persian Leopard protection.	National authorities, experts, conservation NGOs	Reduced number of violations of the laws.	2028	TBD	2.2, 19.6	2
Result 1.3 Sufficient and stable / expanding interconnected populations of key wild prey species exist in Persian Leopard priority areas of at least two regions / metapopulations by 2028.	Activity 1.3.1 Establish a programme for caretakers and rangers in at least two regions / metapopulations to monitor and protect key wild prey species and habitats.	NGOs, GOs, PA personnel, local communities and other local / regional stakeholders.	Programme is operating.	2028	TBD	2.2, 7.2, 19.6, 19.7	2

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⁴ See Figure 1 for the delineation of the metapopulations.

Result	Activity	Actor	Indicator	Timeline	Cost (USD)	CAMI POW	Priority ¹
	Activity 1.3.2 Assess the status and conservation needs of key wild prey populations to secure viable prey populations in Persian Leopard priority areas.	NGOs, GOs, scientific and research institutions and PA personnel	Report on the status of key wild prey populations in Persian Leopard priority areas.	2028	TBD		3
	Activity 1.3.3 Develop and apply reintroduction and / or recovery programmes for Persian Leopard prey, where necessary.		State-specific recommendations / work plan for reintroduction and recovery is published	2030	TBD		2
Objective 2: To agree on and implement key wild prey populations in priority areas	an effectual and sustainable wildlife manag	gement system within a	and outside PAs to assure the	e long-term e	xistence of viab	le Persian Leop	oard and
Result 2.1 The key PAs have developed and implemented effective management plans that ensure (1) law enforcement for protected species, (2) sustainable wildlife management, and (3) sustainable use of the area by people, where allowed (grazing livestock, harvesting firewood, timber, etc.) by 2030 (see Result 5.2).	Activity 2.1.1 Develop and implement management plans for priority PAs identified in Activity 1.1.1.	NGOs, GOs, scientific institutions and PA management	Management plans are developed, approved and their implementation is initiated.	2030	TBD	2.4, 5.8, 19.2	2
	Activity 2.1.2 Assess the effectiveness of implementation of the management plans of key PAs through standardized tools ⁵ (e.g. METT) and revise management plans accordingly (see Activity 5.2.2).	NGOs, GOs and PA management	Report on evaluations using METT and / or other standardized tools is available and revised management plans of priority areas are developed and implemented	Every three years	TBD		2
developed and implemented in key areas outside and between PAs identified as the priority areas (see R 1.1) by 2031 aiming to maintain healthy wild ungulate and Persian Leopard populations in these multi-use lands (see Result 5.1).	Activity 2.2.1 Develop and implement sustainable land-use plans for the identified priority areas (see Activity 1.1.1) and other conservation measures outside and between PAs.	NGOs, GOs, landowners, PA management, local communities, local stakeholders	Sustainable land-use plans are developed and approved, and their implementation is initiated	2030	TBD	19.2, 19.4	3
	Activity 2.2.2 Assess the implementation of sustainable landuse plans in priority areas regarding wildlife conservation, and revise / update these plans, as needed.	NGOs, GOs and experts (on-the- ground)	Evaluation reports on the land-use plans are produced and plans for priority areas are revised and implemented.	2031	TBD		2

⁵ Standardized tool(s) refers to a collection of data (includes registration of time and location over time) that allows for scientific assessment of the interventions, and ultimately it allows to evaluate the effectiveness of different interventions / techniques.

Result	Activity	Actor	Indicator	Timeline	Cost (USD)	CAMI POW	Priority ¹
Objective 3: To perform initial surveys, we conservation measures.	rhere needed and implement a reliable mor	nitoring system for Pers	ian Leopard and key wild pre	ey species with	hin and outside	PAs to guide	<u> </u>
Result 3.1 Potential Persian Leopard habitats are surveyed for Persian Leopard and key wild prey presence and status by reliable methods and in collaboration with stakeholders in all Persian Leopard Range States by 2028 (see Result 5.1).	Activity 3.1.1 Secure resources / capacities necessary to conduct surveys and to map Persian Leopard records and key wild prey species in accordance with the results of Activity 1.2.1 (see Activities 9.4.1 & 9.4.2).	NGOs, scientific and research organisations, PA personnel and local communities	Teams implementing Persian Leopard and key wild prey species surveys are fully equipped and trained	2025	TBD	19.2, 19.5, 19.6, 19.7	3
	Activity 3.1.2 Conduct surveys of identified potential Persian Leopard habitat (according to the results of Activities 1.2.1 & 5.1.2) in collaboration with stakeholders in identified priority areas in order to map Persian Leopard and key wild prey occurrence.		Report on all potential Persian Leopard habitats, which had been surveyed, Persian Leopard habitats identified and Leopard and key wild prey species occurrence mapped.	2028	TBD		3
Result 3.2 All core Persian Leopard habitats ⁶ are surveyed to identify the status and main threats to Persian Leopard and its key wild prey and, wherever possible, monitored by 2028.	Activity 3.2.1 Identify the status and main threats to Persian Leopard and their key wild prey in the surveyed habitats under Activity 3.1.2. taking into account also the outcomes of Activity 1.2.2.	NGOs, scientific and research organisations, PA personnel and local communities	Report on the status and threats to Persian Leopard and its key wild prey is published	2028	TBD	19.2, 19.5, 19.7	3
	Activity 3.2.2 Monitor priority areas regularly in regard to the status of the Persian Leopard and its key wild prey in accordance with Activity 1.2.2, applying the guidelines developed under Activity 3.3.1.		Regular reports on the status and threats to Persian Leopard and its key wild prey are published and presented	2028	TBD	19.7	3
Result 3.3 Methodologies of population monitoring are shared, standardized ⁷ , adopted and implemented within and among the Range States by 2028.	Activity 3.3.1 Produce guidelines / manuals describing standard practices and methods of monitoring in national languages.	NGOs, scientific research organisations, experts	The guidelines / manual specifying monitoring methodologies and their applications for each Range State and area is produced, translated into national language(s), presented and approved.	2025	TBD	19.7, 19.8	2

⁶ Core habitat of the Persian Leopard is defined as patches of prime leopard and wild prey habitat at least sufficiently large to host the smallest possible breeding population of Persian Leopards.

⁷ Standardized means in this case suitable for use in scientific research and conservation.

Result	Activity	Actor	Indicator	Timeline	Cost (USD)	CAMI POW	Priority ¹
	Activity 3.3.2 Adopt and implement the standardized guidelines / manual for monitoring Persian Leopard and key wild prey (see Activities 1.2.1, 3.2.2 & 3.3.1) by dedicated monitoring teams and promote exchange programmes between Range States.	NGOs, and scientific research organisations	Training of monitoring teams conducted and reported, report on equipment and skills of monitoring teams, report on monitoring Persian Leopard and their key wild prey species is produced, exchange visits took place.	2028	TBD		2
Result 3.4 A Persian Leopard database are set up to share the results of surveys of Persian Leopard and key wild prey for the purpose of in-State and transboundary / international cooperation in conservation by 2028.	Activity 3.4.1 Develop and adopt guidelines for sharing and structuring data on Persian Leopard and key wild prey species nationally and, where possible, between Persian Leopard Range States.	NGOs, GOs, and research organisations	Guidelines for sharing and structuring data are developed and available in all Range State national languages and adopted by all Range States.	2025	TBD	19.7, 19.8 19.2, 19.7.	2
	Activity 3.4.2 Establish regional databases of Persian Leopard records and key wild prey species, especially in transboundary areas, aimed to help identify Persian Leopard individuals and their movements.		The databases are established, and Range States are invited to use them.	2026	TBD	19.2, 19.7, 19.8	2
	Activity 3.4.3 Make the databases accessible, successfully used, and regularly updated by all Range States, where possible.		The databases are accessible and regularly used by all Persian Leopard Range States, where possible, report on users training to identify individual Persian Leopards by animal recognition software.	2028	TBD	19.8, 19.9	2
Result 3.5 Standardized National / Regional Persian Leopard Status reports are available for all Persian Leopard Range States every six years based on the data entered into databases (see Result 3.4).	Activity 3.5.1 Develop standardized national / regional Persian Leopard status reports, e.g., based on the data entered into the databases (see Activities 3.4.1 & 3.4.3).	NGOs, GOs, and research organisations	National / Regional Persian Leopard status reports are available every 6 years with shorter intermediate reports at 3- year intervals, in accordance with CMS CAMI reporting cycles.	Every 6 years	TBD	19.7, 19.9	2

Result	Activity	Actor	Indicator	Timeline	Cost (USD)	CAMI POW	Priority ¹
Objective 4: To establish and maintain a future <i>in situ</i> needs.	n ex situ population of the Persian Leopard	including institutions in	all Range States, in order to	secure a gei	netic backup ar	nd a source pop	ulation for
Result 4.1 Each Persian Leopard Range State has access to a national or regional properly equipped Rescue Centre ⁸ with qualified staff (including veterinarians and care- takers) allowing to (temporarily) host injured, orphaned or confiscated Persian Leopards.	Activity 4.1.1 Conduct a feasibility study of rescue centres across the Persian Leopard range including all Range States: Make an inventory of facilities able to hold Persian Leopards in each Range State, and identify possible rescue centres including a possibility of shared (international centres).	Consultant in cooperation with national authorities, national / international zoo experts and NGOs, CMS and CITES	Feasibility study finished and shared.	2023	20,000		2
	Activity 4.1.2 Establish and equip specific Persian Leopard rescue centres in identified institutions (e.g. qualified zoos) or build new ones, where needed / feasible.	Identified zoos / wildlife centres in cooperation with national / regional authorities and national / international experts (e.g. EAZA bodies) and conservation NGOs	Rescue centres constructed and approved by EAZA Persian Leopard EEP / designated zoo expert	2027	TBD for each rescue centre		2
	Activity 4.1.3 Develop an ex situ husbandry plan and protocol(s) for taking care of wild Persian Leopards and a decision-making tree for their destinies (in English) and adapt them to the national conditions and responsibilities (in national languages).	EAZA Felid TAG and Persian Leopard EEP in cooperation with national authorities and experts	Over-arching template and national rescue plans and related protocols available	2023-24	20,000		2
	Activity 4.1.4 Educate the husbandry staff and veterinarians of the rescue centres in taking care of wild Persian Leopard.	EAZA Felid TAG and Persian Leopard EEP, supported by national institutions and national/ international conservation NGOs	Each rescue centre has educated staff to hold wild Persian Leopards	2027	10,000 per country		2

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⁸ A Rescue Centre is a place to safely host and care for wild injured or orphaned Leopards with the aim to release them again to the wild or – if this is not possible – to integrate them into a breeding programme. A Rescue Centre is neither a zoo nor a breeding centre, but it might be integrated into such a facility to allow easy access to know-how, equipment, and infrastructure

Result	Activity	Actor	Indicator	Timeline	Cost (USD)	CAMI POW	Priority ¹
Result 4.2 All Persian Leopard Range States have formed, and trained functional task force(s) (e.g. wildlife or veterinary services, rangers, police, etc.) able to intervene and properly handle wild injured or orphaned Persian Leopards, problem animals or specimens to be confiscated from private persons or institutions by 2027.	Activity 4.2.1 Develop guidelines / specific protocol(s) (in English) for in situ interventions and rescue operations of Persian Leopard and adapt them to the national conditions and responsibilities (in national languages).	Consultant in cooperation with (inter)national experts, national authorities and NGOs	National rescue plan and related protocols available	2023-24	20,000		2
	Activity 4.2.2 Establish a training plan / protocol (based on the <i>in situ</i> guidelines; Activity 4.2.1) for the education of intervention task forces in Persian Leopard Range States.	(Inter)national group of experts in cooperation with consultant(s) for Activities 4.1.1 & 4.1.3 and other international / national institutions	Training programme is available and ready to be applied	2023	5,000	19.3, 19.6	2
	Activity 4.2.3 Establish and train at least one task force per Range State about rapid <i>in situ</i> interventions to capture / rescue injured Persian Leopards or problem animals in the field in cooperation with national wildlife management bodies and the rescue centres	National / provincial wildlife management authority, rescue centre(s), NGOs and experts	All areas with Persian Leopard presence have a fast intervention team that is trained and equipped Two teams formed / educated per year	2032	10,000		2
Result 4.3 A range-wide plan for establishing and maintaining a demographically and genetically healthy ex situ population as a safe source for Persian Leopards in cooperation with the EAZA EEP ⁹ and regional zoos, rescue and / or breeding centres is developed and endorsed by 2027 and subsequently regularly reviewed and updated.	Activity 4.3.1 Expand the current EAZA Long-Term Management Plan for the Persian Leopard EEP into a strategy for the <i>ex situ</i> Persian Leopard population including all institutions and animals, respectively, in Persian Leopard Range States to ensure a demographically and genetically healthy captive population for future re-introduction activities.	EAZA Felid TAG and Persian Leopard EEP in cooperation with national experts and national authorities	Range-wide ex situ Persian Leopard conservation strategy endorsed and implemented in all Range States and other States holding Persian Leopards	2023 (drafted) 2025 (endorsed)	N/A		1

⁹ The European Association of Zoos and Aquaria maintains an *ex situ* programme (EEP) and studbook for the Persian Leopard with the goal to secure a genetically and demographically healthy population of Persian Leopard in the zoos. The EEP cooperates with zoos in the Range States. Specific Breeding Centres or Rescue Centres have a different task, but all three types of institutions need to strategically cooperate based on a regularly reviewed plan and agreement.

Result	Activity	Actor	Indicator	Timeline	Cost (USD)	CAMI POW	Priority ¹
	Activity 4.3.2 Develop and implement standardized release and post-release monitoring protocols for the <i>ex situ</i> Persian Leopard population in the Range States.	EAZA Felid TAG and Persian Leopard EEP in cooperation with national experts and national authorities	Release and post- release monitoring protocols developed and shared	2025	TBD		2
Theme 2: Conservation of suitable habita	ats and connectivity.						
	limate-smart ¹⁰ and effectively managed netw (sub) populations in close cooperation with		PAs and corridors for the co	nservation of	Persian Leopa	rds and key wil	d prey
Result 5.1 Priority areas and corridors for Persian Leopard and its key wild prey are modelled (and validated) by 2031 (see Results 1.1 & 3.1).	Activity 5.1.1 Produce high-resolution habitat suitability / occupancy models for Persian Leopard and its key wild prey species based on best available data and modelling techniques to inform spatially explicit conservation plans.	International expert working group including scientific institutions from the Range States	Scientific publications and range-wide report available and shared with relevant national institutions	2024	55,000	19.2, 19.5	2
	Activity 5.1.2 Ground-proof / validate habitat models and prove Persian Leopard and key wild prey presence at national levels and summarize findings in respective national reports to be shared with relevant institutions.	National teams	State-specific spatially explicit plans / reports available and shared with relevant national institutions	2031	250,000		2
Result 5.2 Priority areas are protected via effectively managed PA systems ¹¹ by 2031 (see Results 1.1 & 2.1).	Activity 5.2.1 Recommend the identified Persian Leopard priority areas to the relevant authorities of each Range State to be taken into account as a scientific basis for PA system decisions (see Activities 5.1.1 & 5.1.2).	Habitat modelling working group national teams	Recommendations for consideration of suitable Persian Leopard priority areas into the PA system are received by governments of Persian Leopard Range States.	2027	5,000	19.2	3
	Activity 5.2.2 Update or develop management plans for priority PAs and agree upon including the information on suitable priority areas and new scientific results (see Activities 2.1.2 & 5.1.1 – 5.1.2).	NGOs, GOs, working group members, PA managers	Management plans are available for key PAs (e.g. for PA managers)	2028	TBD (state- dependent)	19.1	2

¹⁰ Covering sufficient habitat and allowing sufficient movement of Leopards and their key wild prey species to maintain viable populations now and under changing climate conditions ¹¹ In this instance PA systems could be legally PAs or OECMs (Other Area-based Conservation Measures)

Result	Activity	Actor	Indicator	Timeline	Cost (USD)	CAMI POW	Priority ¹
	Activity 5.2.3 Establish the unified reporting system of implementation of standardized management effectiveness tracking tools (e.g., METT) across PAs of Persian Leopard Range States.	NGOs, GOs, PA managers	Standardized management effectiveness evaluation reports are regularly produced from all key PAs in each Persian Leopard Range State.	2031	TBD (state- dependent)	19.7	2
	Activity 5.2.4 Monitor the PA management effectiveness by using available standardized tools (e.g., METT) in the PAs from Persian Leopard Range States and adapt according to the outcomes.	NGOs, GOs, PA managers	Management effectiveness evaluation reports exist for each priority PA and management plans are updated, when needed	2031	TBD (state- dependent)		2
Result 5.3 Safe Persian Leopard movement is ensured through functional and well-managed systems of corridors ¹² (dispersal routes, etc.) and safe wildlife passages in critical spots in PA systems and priority areas	Activity 5.3.1 Identify main Persian Leopard and prey movement corridors and evaluate barriers and threats with the use of adequate tools and best available data.	Habitat modelling working group (and national teams (see Activities 5.1.1 & 5.1.2)	Detailed maps of wildlife corridors, barriers and threat are available	2025	50.000	19.2, 19.5	3
outside of PAs by 2031 (see Result 1.2).	Activity 5.3.2 Develop and implement management plans for important corridors including mitigation of movement barriers and threats.	NGOs, relevant GOs, scientific experts, land users	Management plans for important habitats outside PAs are implemented	2031	TBD	19.5	3
	Activity 5.3.3 Monitor functionality of corridors and evaluate measures to mitigate barriers / threats.		Effectiveness of corridor functionality, barriers and threats as well as respective mitigation measures is being monitored and respective report produced.	Regularly	TBD		2
Result 5.4 Involvement of local community groups and key stakeholders in Persian Leopard conservation is ensured by 2030 (see Result 8.1).	Activity 5.4.1 Identify key local stakeholder groups for Persian Leopard conservation in priority areas / corridors and develop specific programmes for each group (see Activities 9.1.1 & 9.1.3).	NGOs, (conservation) social scientists	Group-specific programmes to incorporate key stakeholders into Persian Leopard / wildlife conservation are produced.	2024	150,000	5.6 – 5.11,5, 15,19. 2	3

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¹² Corridors include passages which can be natural and/or artificial

Result	Activity	Actor	Indicator	Timeline	Cost (USD)	CAMI POW	Priority ¹
	Activity 5.4.2 Implement specific programmes for key stakeholders and local communities to enhance their involvement in Persian Leopard conservation (see Activities 9.1.2 & 9.1.3).	NGOs, social scientists, local promotors and community representatives	Stakeholder groups and local communities are informed about and involved / engaged in Persian Leopard and wildlife conservation in their territories	2026-2027	250,000	5.6 – 5.11,1 9.10, 19.11	2
	Activity 5.4.3 Monitor the effectiveness of the specific programmes and adapt them wherever needed.		Reports on the effect of the programme on local people and wildlife are produced and discussed with the local communities and updated/improved in a participatory approach	2031	250,000	5.6 – 5.11,1 9.7	2
Theme 3: Human Dimension.							
Objective 7: To mitigate human-Persian	Leopard conflicts to allow long-term coexist	ence of local people an	d Persian Leopards.			1	
Result 7.1 Guideline and practical tools to prevent livestock losses to Persian Leopard attacks are made available to livestock owners, and, where appropriate, conservation and mitigation incentive schemes are established by 2027.	Activity 7.1.1.a Conduct a climate risk and vulnerability assessment for local communities to identify the impacts of climate change, land use change and other related factors on the interaction between humans, Persian leopard, its prey species and habitats.	NGOs, academia and universities, GOs, experts, local / regional stakeholders	Climate risk and vulnerability assessment report prepared	2025	TBD	TBD	2
	Activity 7.1.1.b Perform an inclusive assessment of conflicts related to livestock losses to Persian Leopard attacks, including the local availability of key wild prey and taking into account potential impacts of climate change on these conflicts.	NGOs, GOs (local authorities), local communities (livestock owners, farmers), scientists	A comprehensive assessment of Persian Leopard attacks on livestock and related conflicts at a range-wide level is done and information shared with national and local institutions.	2025	50,000	4.1 - 4.15, 5.3, 19.3, 19.7	2
	Activity 7.1.2 Develop and promote locally adapted livestock protective measures in collaboration with local communities for sites with high conflict levels (see Activity 7.1.1).		Manual for the application of livestock protection / husbandry is available in local languages and applied in each Range States in high conflict areas	2025	50,000		2

Result	Activity	Actor	Indicator	Timeline	Cost (USD)	CAMI POW	Priority ¹
	Activity 7.1.3 Survey and assess livestock grazing in priority areas inside and outside PAs across the Persian Leopard range, with emphasis on habitats degraded from overgrazing.	NGOs, GOs, local communities, scientific institutions / universities	Monitoring and evaluation reports on livestock grazing in priority areas and its impact on wild ungulates are available.	2025	250,000	4.1 - 4.15,1 9.3, 19.4, 19.7	2
	Activity 7.1.4 Develop respective livestock husbandry guidelines for PAs and corridor areas to prevent overgrazing (see Activity 7.1.3).		Sustainable livestock husbandry guidelines are developed and endorsed by relevant (governmental) organisations.	2027	TBD	4.1 – 4.15, 5.3, 19.3	2
	Activity 7.1.5 Train pastoralists about conflict mitigation tools and sustainable livestock husbandry practices, through collaborative workshops.	NGOs, GOs, local communities, scientific institutions / universities, pastoralists	Number of people trained, Reports on workshops are available.	2027	50,000	4.4 – 4.6, 19.3	2
	Activity 7.1.6 Monitor and evaluate the effects of conflict mitigation measures and adopted livestock husbandry on local economy, Persian Leopard and key wild prey populations, and adapt guidelines as needed.	NGOs, scientists, local livestock and wildlife authorities, livestock owners	Livestock losses reduced, livestock-related income increased, Persian Leopard and wildlife situation improved.	2030	TBD	4.1 – 4.15, 19.3, 19.7	2
Result 7.2 The importance and severity of feral dogs, free-ranging dogs and livestock guardian dogs as a driver (human-Persian Leopard conflict, key wild prey depletion) or a threat	Activity 7.2.1 Assess the impact of feral dogs, free-ranging dogs and livestock guarding dogs on Persian Leopards and key wild prey species in priority areas (see Activity 7.1.2).	NGOs, responsible GOs, local communities, scientific institutions in cooperation with	Assessments reports and scientific articles are available	2024	50,000	4.12	2
(attacking Persian Leopards, kleptoparasitism) is assessed and understood by end of 2025.	Activity 7.2.2 Share the assessment reports with relevant stakeholders (GOs, local communities) to address conflicts and inform dog management (see Activity 7.1.2).	local communities	Stakeholders are informed and results of Activity 7.2.1 are integrated into livestock husbandry guidelines	2025	10,000		2

Result	Activity	Actor	Indicator	Timeline	Cost (USD)	CAMI POW	Priority ¹
Objective 8: To ensure long term suppor conservation.	t of local communities to Persian Leopard o	conservation by improvi	ing their conservation-friendly	/ livelihood ar	nd involving the	m in Persian Lo	eopard
Result 8.1 A strategy to involve and integrate the local communities and different stakeholder groups' attitudes towards issues related to Persian Leopard, wildlife, and nature conservation is developed and implemented by 2031.	Activity 8.1.1 Develop a strategy to involve and integrate the local communities and to improve the attitudes of different stakeholder groups to Persian Leopard, wildlife, and nature conservation.	Conservation NGOs, GOs, local communities, scientific institutions / Universities	Strategy on involvement and integration of local communities and stakeholder groups is developed	2025	250,000	19.3	3
	Activity 8.1.2 Implement the strategy to involve and integrate the local communities and improve the attitude of different stakeholder groups to Persian Leopard, wildlife, and nature conservation.		Report on the assessment and evaluation of the implemented strategy; Number of local communities involved, Number of new areas under protection outside PAs	2031	20 M		2
	Activity 8.1.3 Implement locally adaptable human-leopard conflict mitigation measures (e.g., electric fencing, trained livestock guarding dogs, training pastoralists, livestock protective collars, predator proof corrals) in areas with a high conflict level (see Activities 7.1.1. & 7.1.2.).	Conservation NGOs, GOs, local communities, individuals	Reports on conflicts and mitigated measures are available; assessment and evaluation of implemented measures are conducted	2031	2.25 M		2
	Activity 8.1.4 Develop and implement conservation incentive mechanisms, livestock compensation schemes or livestock insurance in livestock depredation areas, where feasible and socially acceptable (see Activity 7.1.2.).		Reports on conservation incentive mechanisms, livestock compensation schemes and livestock insurance implementation are developed	2031	4.25 M		2
Result 8.2 Plans for integrative livestock husbandry practices and sustainable rangeland management are available by 2027 and implemented by 2031.	Activity 8.2.1 Develop and implement plans for integrative livestock husbandry practices and sustainable rangeland management in priority PAs where relevant, and priority non-PAs (see Activities 2.2.1, 7.1.3 & 7.1.4).	NGOs, GOs, local communities, scientific institutions / universities	Sustainable rangeland management plans including the integration of livestock husbandry practices are produced, disseminated and implemented	2031	3 M	4.1 - 4.15,1 9.3, 19.4	2

Result	Activity	Actor	Indicator	Timeline	Cost (USD)	CAMI POW	Priority ¹
Objective 9: To advance awareness, ed knowledge base for conservation.	ucation and competence of all interest grou	ps involved in or conce	rned by Persian Leopard con	servation to i	ncrease their u	nderstanding a	nd
Result 9.1 Conservation education programmes and/or information schemes for specific groups (e.g. local hunters, shepherds, school children, rangers, border guards, local police/security officers, local community / religious leaders) are developed, shared, mainstreamed and applied in the Persian Leopard priority areas inside and outside PAs by 2027.	Activity 9.1.1 Identify target groups in priority areas and assess their level of awareness of Persian Leopard, wildlife and environment in general.	NGOs, GOs, local communities, scientific institutions,	Target groups identified and baseline reports produced	2025	500,000	5.2, 5.6, 5.8,	2
	Activity 9.1.2 Develop and implement education programmes in priority areas of Persian Leopard habitats addressing the needs of identified target groups as defined in the assessment report (see Activity 9.1.1).	universities	Report on education programmes development and implementation is available	2031	3.5 M	5.6, 5.8, 19.10.	2
	Activity 9.1.3 Develop and implement a scheme on information sharing with local communities and target groups about conservation of the Persian Leopard and nature in general.	NGOs, GOs, local communities, scientific institutions, universities	Reports on the developed and implemented scheme are available.	2031	1.5 M	,	2
Result 9.2 The capacity (personnel, funding) needed for awareness-raising and consistent educational programmes (Result 9.1) is created by 2027 and continually maintained and applied thereafter.	Activity 9.2.1 Assess capacity-building needs for awareness-raising and the development of consistent educational programmes and identify the points of action as well as key people to address and consider (see Activities 8.1.1, 9.1.2, 12.2.1 & 12.2.2).	NGOs, GOs, scientific institutions, universities	Report on the assessment, including recommendations of points of action and a list of key people to address are available.	2025	TBD	7.5,	2
	Activity 9.2.2 Address the points of action identified under Activity 9.2.1 to enhance and create the capacity needed for awareness-raising and for developing consistent educational programmes by conducting participatory workshops and trainings with identified key people (see Activities 8.1.1 & 8.1.2).	NGOs, GOs, scientific institutions, universities, identified key people	Report on conducted workshops and trainings is available, number of people that attended the workshops and are trained	2027	TBD		2

Result	Activity	Actor	Indicator	Timeline	Cost (USD)	CAMI POW	Priority ¹
	Activity 9.2.3 Continually re-assess capacity-building needs for awareness- raising and for developing educational programmes and if needed repeat workshops and trainings as defined under Activity 9.2.2.		Assessment report on capacity-building needs, additional number of people that attended the workshop and are trained	Regularly	TBD		2
Result 9.4 Capacity building programmes to address gaps in research and Persian Leopard conservation by training and supporting specific groups (e.g. students, scientists and wildlife rangers,	Activity 9.4.1 Identify gaps in Persian Leopard research and conservation and develop capacity building programmes for the target groups (e.g. students, scientists, and wildlife rangers) addressing those gaps.	National/ international NGOs, GOs, scientific institutions, universities	Report on gap analysis produced, capacity building programmes developed	2025	500,000	7.1 – 7.5, 19.2	3
community supporters and Persian Leopard care takers).	Activity 9.4.2 Implement capacity building programmes for the target groups (e.g. students, scientists, wildlife rangers, community supporters / Persian Leopard caretakers).		Report on implementation of capacity building programmes, number of people that successfully attended training programmes	2027	1.5 M		3
Theme 4: Policy, Legislation and Internati	onal Cooperation.						
Objective 10: To optimize existing policies poaching and illegal trade).	es including communication with local land	users, adopt new or am	nend existing laws, where nee	eded, and stre	engthen law enf	orcement (e.g.	on
Result 10.1. NAPs and / or other related programmes for Persian Leopard conservation are developed and, in case they exist, revised in compliance with the range-wide	Activity 10.1.1. Organise expert meetings for development / up-date of NAPs based on the range-wide Conservation Strategy and revise or develop NAPs.	Relevant national authorities, academia, NGOs, national expert group	Revised or developed NAPs are available	2026	25,000 per country	2.1, 19.1	2
Conservation Strategy for the Persian Leopard and other multilateral environmental agreements by 2026.	Activity 10.1.2. Promote the approval of NAPs by national authorities.	Relevant national authorities	Endorsed NAPs by national authorities	2026	TBD		2

Result	Activity	Actor	Indicator	Timeline	Cost (USD)	CAMI POW	Priority ¹
Result 10.2. Every five- years thereafter, the progress of implementation of NAPs and/or other related programmes for Persian Leopard is tracked by national expert teams together with the national wildlife authorities and other relevant authorities, and coordination of all other relevant issues on national level is organised.	Activity 10.2.1. Organise consultations with national stakeholders and/or experts to prepare adaptive proposals for NAPs and/or other related programmes for Persian Leopard.	National groups responsible for updating NAPs (GOs, NGOs and experts, local community groups	Report of working group on the need of NAPs updates	Every five years	TBD	19.1	2
	Activity 10.2.2. Update the NAPs and/or other related programmes for Persian Leopard according to the recommendation reports of Activity 10.2.1 based on the adaptive management framework.		Every five years	TBD		2	
Objective 11: To strengthen internationa	l and transboundary cooperation for the cor	servation of the Persia	n Leopard and its key wild pro	ey species			
Result 11.1 Transboundary initiatives on monitoring of Persian Leopard and its wild prey at appropriate levels (e.g. sub-regional, national, sub-national) are in place by 2027 (see Results 3.3, & 12.1).	Activity 11.1.1 Identify transboundary monitoring / survey areas for Persian Leopard and its key wild prey (also see Activities 3.1.1, 3.1.2 & 11.3.1-11.3.3).	National expert groups (GOs, academia, NGOs)	Inventory of monitoring / survey areas including detailed maps	2023	TBD	19.2	3
	Activity 11.1.2 Establish a monitoring work programme for transboundary monitoring initiatives and conduct meetings at least once a year (see Activities 1.2.1, 1.2.3, 3.1.1, 3.1.2, 3.2.1, 3.2.2, 3.3.1 & 11.3.1-11.3.3).	Academia, GOs, NGOs, national monitoring working group(s)	List of working group members and meeting minutes, monitoring work programme available	2023	TBD	19.7	3
	Activity 11.1.3 Implement the monitoring work programme as defined under 11.1.2 (see Activities 1.2.2 & 3.3.2).		Report on implemented monitoring work programme	2027	TBD	19.2	3
	Activity 11.1.4 Prepare national monitoring reports (at least in transboundary priority areas) in accordance with the timeline of the Activity 3.5.1 and share them with CMS CAMI, other Range States and relevant stakeholders (see Activities 3.4.1, 3.4.2, 3.4.3, 3.5.1 & 11.3.3).	National working group members	Illustrated report with images of identified Persian Leopard and other relevant information (e.g. ungulate census)	Every three years	TBD	19.7, 19.8, 19.9	2

Result	Activity	Actor	Indicator	Timeline	Cost (USD)	CAMI POW	Priority ¹
Result 11.2 Illegal trans-border trade in Persian Leopard / other cat species and derivatives is suppressed and prevented, wherever it occurs.	Activity 11.2.1 Train and equip national customs, border guards and other relevant GOs to combat illegal trade in Persian Leopard and other cat species and their parts.	National customs, border guards, national monitoring groups, relevant authorities, CITES, TRAFFIC	Number of trained and equipped authorities' representatives, report on training conducted	2027	TBD	2.2 - 2.4, 19.6	2
	Activity 11.2.2 Ensure exchange of information between national customs, border guards and other relevant authorities, CITES, TRAFFIC and national Persian Leopard monitoring working groups and enhance the coordination at national and regional level with regard to CITES implementation (see Activities 11.1.2 & 3.4.1 – 3.4.3).	Customs, border guards, CITES authorities, working groups, TRAFFIC, national monitoring working groups, other relevant authorities	Report on records of illegal trade produced, information on previously identified Persian Leopards of monitoring groups is shared, regular exchange of information at national and regional levels	ASAP	TBD	2.5, 2.7, 19.8	1
	Activity 11.2.3 Promote the inclusion of intelligence on illegal Persian Leopard trade and trade in other cat species generally into conservation plans ¹³ (e.g. NAPs) by developing recommendations on how to combat illegal trade (see Activities 10.1.2 & 10.2.2).	Actors involved in NAP implementation, CITES authorities, customs.	Report with recommendations on how to address illegal trade in Persian Leopards	ASAP	TBD	2.1 – 2.8, 19.1	1
Result 11.3 A set of targeted remedial initiatives are developed and initiated to support functional connectivity within transboundary landscapes by 2027 (see Results 1.2. & 5.3).	Activity 11.3.1 Identify transboundary landscapes relevant to Persian Leopard conservation initiatives, taking into consideration the recommendations of the study Transboundary Conservation Hotspots for CAMI (also see Activities 1.1.1 & 3.1.1).	Relevant national Working Groups	Proposals of landscapes for selected conservation initiatives are available	2025	TBD		3
	Activity 11.3.2 Develop, where feasible, concrete and spatially explicit transboundary conservation initiatives (based on common regional conservation strategies / agreements facilitated by CMS / CAMI and IUCN in partnership with Range States in a participatory process. (e.g. ECP; see Activities 11.3.1, 10.1.2 & 10.2.2).	CMS CAMI, Persian Leopard Working group with relevant stakeholders (scientists, IUCN, GOs, NGOs), GOs in charge in cooperation with Working Group	Feasiblity assessment, based on questionnaire developed and circulated among Range States, report on local transboundary conservation initiatives is available	2024-2027	TBD	19.2.	2

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¹³ Consider synergies between other action plans and strategies

Result	Activity	Actor	Indicator	Timeline	Cost (USD)	CAMI POW	Priority ¹
	Activity 11.3.3 Implement the selected transboundary initiatives (Activity 11.3.2) led by respective national governmental bodies.	GOs in charge in cooperation with Working Group	Report on concrete transboundary conservation initiatives released and progress reports published annually	2032	TBD	1.6, 1.7	3
Objective 12: To secure international su	pport and funding for the implementation of	conservation activities	for the Persian Leopard and	its key wild p	rey across their	range.	
Result 12.1 Project-oriented cooperation between governmental, non- governmental and academic institutions for Persian Leopard conservation is established at national, regional and international levels by 2024, and transboundary cooperation is established by 2027.	Activity 12.1.1 Prepare a project portfolio including a budget plan at national/regional levels, involving governmental, non-governmental and academic institutions for Persian Leopard conservation, including transboundary initiatives, where feasible.	Relevant national / sub-national authorities, academic institutions and NGOs	Project portfolio, containing different projects for donors, Projects submitted,	2023	TBD	1.4	2
Result 12.2 A broad base of funding from (inter-) governmental and private donors is secured to ensure long-term support for Persian Leopard conservation in accordance with the CAMI POW.	Activity 12.2.1 Produce an overview report with a realistic timeline and budget for the implementation of this Conservation Strategy and a list of additional priority projects for Persian Leopard conservation (see Activity 12.2.3).	Consultant in cooperation with governmental agencies, CMS, IGOs, NGOs, and scientific institutions	Report with realistic estimation of financial needs and a timeframe available	TBD	10,000		2
	Activity 12.2.2 Integrate Persian Leopard conservation into the CAMI fundraising strategy and establish it as a flagship species to raise funds also for projects related to the species' habitats, key wild prey and human- Persian Leopard co-existence.	GO, CMS CAMI, IGOs, NGOs (not all Range States are CMS Parties)	Fundraising strategy for Persian Leopard conservation within the CAMI fundraising strategy available	2024	TBD	31.1 - 31.12	3
	Activity 12.2.3 Ensure that NAPs based on this Range-wide Conservation Strategy include concrete budgets for each Activity.	NGOs, GOs, experts, relevant national authorities, private donors	NAPs include a concrete budget for activities	2025	TBD		2