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OF WILD FAUNA AND FLORA



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PRIORITIES FOR COOPERATION ON JAGUAR CONSERVATION:
REPORT OF INTERVIEWS WITH FOCAL POINTS OF CMS PARTIES IN THE JAGUAR RANGE

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CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

Priorities for Cooperation on Jaguar Conservation: Report of Interviews with Focal Points of CMS Parties in the Jaguar Range

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Introduction

In February 2020, at the CMS COP 13 held in Gandhinagar, India, the jaguar (*Panthera onca*) was included in Appendices I and II of the CMS, following the proposal for inclusion presented by Costa Rica, Argentina, Bolivia, Paraguay, Peru and Uruguay. The aim of the proposal was to "facilitate large-scale transboundary conservation of the species at the landscape level" across jaguar Range States.

As a result of the jaguar listing in CMS, all jaguar Range States that are Parties to CMS must implement their obligations with regards to Appendices I and II.

- Appendix I includes the obligation to legally prohibit jaguar 'taking' (capture, killing, trade, persecution) in their territories and to endeavour to take measures to conserve jaguar habitats, enable their movement, and prevent any risk factors.
- Appendix II is about international cooperation, and jaguar Range States should endeavour to conclude international agreements to conserve jaguars and their habitats across boundaries.

For compliance with Appendix II on international cooperation, CMS offers the possibility of initiating several types of agreements, depending on jaguar Range States' needs and priorities. These different types of agreements include legally binding AGREEMENTS, Memoranda of Understanding, Initiatives, Concerted Actions, and Action Plans, each with different characteristics and requirements (refer to Appendix 1 in this report).

Since February 2020, the jaguar Range States that successfully proposed the inclusion of the jaguar in CMS (Costa Rica, Argentina, Bolivia, Paraguay, Peru and Uruguay) established a working group named "CMS Jaguar Sub-Group", tasked with advancing actions towards the implementation of the jaguar listing obligations under CMS Appendices I and II. Representatives of the CMS Jaguar Sub-Group held several virtual meetings and drafted a Work Plan, including key actions such as:

- 1) identifying relevant stakeholders involved in jaguar conservation in their territories,
- 2) identifying key needs and measures to achieving jaguar conservation (including habitat conservation and 'no-take' measures) under CMS at the national and regional level,
- 3) searching for viable actions to comply with Appendices I and II.

In July 2021, the CMS Secretariat hired a consultant (Dr. Melissa Arias) to support the CMS Jaguar Sub-Group States to achieve the activities in their Work Plan, including engagement with other jaguar Range States.

From August to September 2021, the consultant conducted individual semi-structured interviews with Focal Points of all jaguar Range States that are Parties to CMS. The interviews, which were carried out virtually and lasted 40-60 minutes, had the objective of uncovering the national and regional priorities for jaguar conservation from the perspective of CMS Focal Points in the jaguar Range. The interview questions focused on identifying habitat conservation needs, strategies to reduce the 'taking' of jaguars and other risk factors, as well as opportunities for regional cooperation. The interviews were analysed using thematic analysis, a systematic process for searching patterns and meanings in qualitative surveys and interviews. The findings from the interviews will inform ongoing actions under the CMS Jaguar Sub-Group Work Plan, and guide future efforts to establish jaguar conservation agreements between jaguar Range States.

Interview Findings

1. National Priorities for Jaguar Conservation

1.1 Habitat Conservation Priorities

The Focal Points of CMS Parties in the jaguar Range identified several jaguar habitat conservation priorities within their countries' territories. These priorities can be classified as actions to: 1) control habitat threats and enforce the law; 2) increase habitat protections; 3) establish and manage protected-productive landscapes; and 4) research and monitoring (Table 1).

Controlling habitat threats and enforcing the law:

The expansion of both small-scale and industrial-scale agriculture and livestock ranching was described as major threat to jaguar habitats in countries like Bolivia, Brazil, Honduras and Paraguay. The production of agricultural commodities like soy and palm oil, along with cattle ranching, were highlighted as leading drivers of deforestation in core jaguar habitats, including protected areas, indigenous territories, and unprotected forests. While much of this agricultural encroachment of jaguar habitats is illegal, a large portion of it is legal. For example, in Bolivia, large-scale agriculture-related deforestation is endorsed by the government through policies supporting the occupation of 'unproductive' lands. Similarly, recent proposals to modify the laws on the governance of indigenous territories in Brazil are threatening to legally open up these lands, which are vital to jaguars, to business and agroindustry. Therefore, beyond controlling the expansion of these threats through increased technical and operational capacity for law enforcement, it is also necessary to advocate for the conservation of jaguar habitats against economic interests at the highest levels of government, as suggested by the representatives from Bolivia and Brazil.

Enforcing the law against habitat loss in remote areas that are hard to reach was also described as a priority by representatives from Peru and France, where jaguars are also increasingly threatened by illegal mining. Interviewees from France raised the issue of illegal gold mining as a threat to jaguars across scattered sections of the Department of French Guiana, as miners degrade and contaminate jaguar habitats. The latter country is also experiencing significant threats from urban expansion into jaguar habitats, which leads to increasing human-jaguar conflict and retaliatory killing.

Increasing habitat protections:

In alignment with the need to reduce habitat threats and enforce laws on deforestation, interviewees highlighted the need to increase and strengthen the legal protection of jaguar habitats. Representatives from Paraguay described how several protected areas in the country are still lacking official designation as protected territories, causing difficulties when it comes to enforcing the law on deforestation. A similar legal and administrative challenge may affect indigenous territories in Brazil if they lose their official designation. In these cases, ensuring the adequate legal standing and land titling of protected areas and indigenous territories becomes a prerequisite for the protection of jaguar habitats. For interviewees in Bolivia, a key concern was that the current protected area system does not cover the current distribution and habitat needs of jaguars, such that conserving jaguar populations in the country would require efforts to expand the protected area system. Representatives from Argentina, Ecuador and Paraguay believed that in addition to protecting core jaguar conservation areas, more work is needed to design, officially designate and implement ecologically functional corridors between them. Corridors would expand the coverage of jaguar habitat protections and their connectivity, as well as encouraging reforestation and human-jaguar coexistence.

Establishing and Managing Protected-Productive Landscapes:

Most country representatives mentioned the need to establish and manage protected-productive landscapes. These are landscapes that include interconnected protected areas, multi-use zones that allow some degree of natural resource extraction, as well as productive areas that are amenable towards jaguars and other wildlife. For interviewees from Costa Rica and Paraguay, these protected-productive landscapes could be achieved through improved land-use tenure and zoning plans, which explicitly consider updated jaguar distribution and habitat demands. Panamanian representatives added that these landscapes would require a stronger jaguar conservation governance, bringing together all relevant stakeholders in the landscape in a common mission to protect the species, and making sure that this

conservation awareness reaches remote areas. All these interviewees, as well as those from Argentina, Brazil and Ecuador mentioned the need to implement incentives for jaguar conservation in these landscapes. These could vary from payment for ecosystem services (PES) provided by jaguar habitats (e.g. carbon or water), or other types of financial incentives like “jaguar friendly” labels or certification systems for products originating from lands that support a peaceful coexistence with the species. Interviewees from Paraguay suggested the design of a CMS label for products that enhance and connect jaguar habitats and which guarantee the protection of the species. For Ecuadorian interviewees, in some areas where jaguar habitats have been severely degraded, it would be necessary to adopt livelihood alternative projects that completely change the productive matrix and current reliance on economic activities that directly affect jaguars and their habitats.

Research and Monitoring Jaguar Populations and Habitats:

Representatives from Ecuador, France, Paraguay and Peru emphasized that there is still a limited basic understanding about jaguar populations in their countries, with only a few studies documenting jaguar distribution, density, and habitat use within their territories. Importantly, jaguar presence remains unknown in large tracts of potentially suitable habitat that have not been previously monitored, making it difficult to assess jaguar population sizes in the country and priority conservation areas. Interviewees from France mentioned that given the challenges and high costs of studying jaguar populations in the vast and remote forests of the French Guiana Department, it has so far been difficult to assess the conservation status of jaguars. Future research efforts in the country will aim to address this knowledge gap by exploring the genetic diversity of jaguars and their genetic connectivity with populations in neighbouring countries. This information will be crucial to assess the attention and priority that should be given to the species, and the need for increased conservation efforts and regional agreements.

Other necessary lines of research identified include prey availability, competition with other predators, threat intensity and distribution, connectivity and corridor functionality. While Argentina has a strong scientific foundation on jaguar population monitoring relative to other countries in the region, its representatives highlighted that it is still necessary to evaluate the performance of jaguar conservation measures implemented in the country, such as corridors.

Table 1: Jaguar Habitat Conservation Priorities

Habitat Conservation Priority	Habitat Conservation Strategy	Argentina	Bolivia	Brazil	Costa Rica	Ecuador	France	Honduras	Panama	Paraguay	Peru
Controlling habitat threats and enforcing the law	Control legal and illegal agricultural and cattle ranching, and urban expansion										
	Protected area enforcement against deforestation										
	Control illegal usurpation of indigenous territories										
	Monitor and control threats to jaguar habitats in remote areas										
	Encourage governments to protect jaguars habitats against economic interests										
Increasing Habitat Protections	Legally protect indigenous territories										
	Protected area titling										
	Expansion of protected area systems										
	Design and implement ecologically functional corridors										
Establishing and Managing Protected Productive Landscapes	Introduce jaguar conservation into land use planning measures										
	Integrate productive and protected landscapes through strengthened jaguar governance										
	Establish and scale-up payments for ecosystem services										
	Establish and scale-up incentives for 'jaguar friendly' productive practices and livelihoods										
Research and Monitoring	Research on habitat and prey availability										
	Research on jaguar population status and habitat use										
	Research on corridor design and functionality										
	Evaluate progress of habitat conservation measures										

1.2 'No-take' Priorities

The Focal Points of CMS Parties in the jaguar Range identified several priorities to comply with the 'no-taking' requirements of CMS within their countries. These priorities can be classified as actions to: 1) control and enforce the law with regards to jaguar poaching and illegal trade; 2) mitigate and manage human-jaguar conflict; 3) enhance education and awareness about jaguar conservation; and 4) research and monitor poaching and illegal trade (Table 2).

Controlling jaguar 'taking' and enforcing the law:

The illegal trade in jaguars was recognized as a key challenge to achieving jaguar conservation by most country representatives. Interviewees expressed concern for both the domestic and international illegal trade in jaguar body parts, emphasizing the need for enhanced technical and operational capacities to investigate and prosecute wildlife crimes to the greatest extent of the law. This included identifying poaching hotspots within their territories, as well as understanding local and international trafficking networks and demand actors. For representatives from Ecuador, these controls should also apply to the hunting of jaguar prey species, understanding that bushmeat hunting affects jaguars by increasing the odds of opportunistic jaguar poaching, and by diminishing their natural prey and accentuating human-jaguar interactions and conflict. Honduran representatives highlighted the trade in live jaguars as a growing issue in the country, and the need to improve the number and capacity of wildlife rescuing facilities. In order to re-introduce trafficked jaguar individuals into the wild when possible, Honduran wildlife rehabilitation facilities also require technological capacity to genetically test individuals to determine their health and origins. For the case of France, jaguar poaching was referred to as a lesser concern when compared to habitat loss in the Department of French Guiana. Nevertheless, there have been few occasions of jaguar poaching and seizures of body parts by the environmental police that are worth monitoring over time. In the latter country, jaguar hunting by indigenous communities is legally authorized, although its levels and impacts are not well understood.

Human-jaguar conflict mitigation and management:

Recognizing the large threat of retaliatory jaguar killing as a result of real or perceived livestock depredation by jaguars, interviewees from Ecuador and Paraguay argued for the design and implementation of effective conflict mitigation measures in their countries, based on successful measures applied elsewhere in the Range. Representatives from Costa Rica, France and Panama expressed that

they have already achieved substantial progress in the implementation of such measures as part of pilot projects in some areas, whereas more efforts and funds are required to scale-up those pilot projects into large-scale livestock management policies. Costa Rican interviewees provided the example of the UAFel unit, a rapid conflict response team built in partnership between NGOs and the government. This unit has been successful in supporting farmers that experience livestock depredation by jaguars and other carnivores, but more resources (funds, vehicles, staff) are needed to reach the entire country with enough time in anticipation to prevent retaliatory killing. Similarly, representatives from France provided examples of the introduction of livestock-guarding donkeys and dogs, and (negative) experiences with jaguar translocation in the Department of French Guiana, ultimately highlighting the need to further engage with local communities to implement these and other measures and to learn how to coexist with jaguars.

Enhancing jaguar conservation education and awareness:

Most country representatives saw environmental education as a key strategy to reduce the 'taking' of jaguars within their territories. Educational programmes tailored to diverse age groups in rural communities that coexist with jaguars were described as a tool that could transform negative perceptions towards jaguars and reduce retaliatory killing or involvement in illegal trade. In particular, spreading information about existing financial and technical support from the government and NGOs for the implementation of conflict mitigation measures was a leading priority for representatives from Panama and Paraguay, who expressed concern for the fact that many jaguar killings could be avoided if ranchers knew that those resources are available. Beyond local communities, representatives from countries like Brazil, Ecuador, France, Honduras, Panama and Paraguay also mentioned the need to conduct large-scale and far-reaching communication campaigns targeted to the general public, to increase awareness about the importance of jaguar conservation and the illegality of poaching jaguars and trade in their body parts.

Researching jaguar poaching and illegal trade:

Interviewees from Bolivia, Costa Rica, Ecuador and Peru explained that the characteristics and scale of jaguar poaching and illegal jaguar trade in their countries are not yet well understood from a scientific or intelligence/enforcement perspective. In particular, interviewees wanted to learn more about how the illegal trade in jaguars may be linked to the cultural practices of indigenous and other rural communities in their countries, and to human-jaguar conflict. Similarly, these countries had yet to confirm cases of cross-boundary international trade in jaguars beyond anecdotal accounts. Therefore, these remain critical areas of investigation. In countries like Ecuador and Peru, there is also limited information about the incidence of human-jaguar conflict and only a few reports have reached the authorities. This lack of information does not necessarily imply the absence of the problem, making human-jaguar conflict another key research area.

Table 2: 'No-take' Priorities

'No-Take' Priority	'No-Take' Strategy	Argentina	Bolivia	Brazil	Costa Rica	Ecuador	France	Honduras	Panama	Paraguay	Peru
Controlling jaguar 'taking' and enforcing the law	Address domestic and international illegal trade through improved technical and operational capacities for law enforcement and prosecution										
	Control jaguar poaching and hunting of prey species										
	Strengthen technology (e.g. genetic testing), facilities and capacity for rescuing, rehabilitating and reintroducing trafficked animals										
Human-jaguar conflict mitigation and management	Design and implement human-jaguar conflict mitigation strategies										
	Scale-up pilot projects for conflict mitigation and farmer compensation										
	Strengthen emergency conflict response units										
Enhancing education and awareness	Promote jaguar conservation education in local communities										
	Increase jaguar conservation awareness in the public through communication campaigns										
Researching jaguar poaching and illegal trade	Understand the links between indigenous cultural practices and illegal jaguar trade										
	Understand the links between conflict and illegal trade										
	Fill information gaps about jaguar trade (actors, routes, impacts)										
	Fill information gaps about human-jaguar conflict (e.g. trends, hotspots and impacts)										

1.3 Other National Priorities

In addition to the habitat conservation and 'no-take' priorities identified above, the Focal Points of CMS Parties in the jaguar Range identified other priorities pertaining to: 1) the implementation of their National Jaguar Conservation Action Plans; 2) strengthening national jaguar conservation governance; and 3) incentivizing knowledge exchange amongst relevant stakeholders (Table 3).

National Jaguar Conservation Action Plans:

CMS jaguar Range countries that have already designed a National Jaguar Conservation Action Plan include Argentina, Bolivia, Brazil, Ecuador, Honduras, Paraguay and Peru. For interviewees from these countries, a key priority is to continue with the implementation of these Action Plans, which already contain strategic actions to protect jaguar habitats and reduce human-induced mortalities. Many of these Action Plans have already identified their necessary budget and assigned the responsibilities to relevant stakeholders like NGOs, academia or local communities, but they lack actual funds to support the implementation of their activities, relying on the external funds of partnering institutions. For most of these countries, it is still necessary to track the progress of current Action Plans, evaluate their performance and results, and update the Action Plans with new information and objectives. Meanwhile, Costa Rica, France and Panama still need to undertake the process of creating their own Action Plan. For Costa Rican representatives, ensuring that all jaguar Range States have an updated and functional Action Plan within this decade should be a national and regional priority.

Strengthening Jaguar Conservation Governance:

Interviewees emphasized the need to bring together all actors working on jaguar conservation in their countries, as well as other relevant stakeholders whose opinions and actions matter for jaguar conservation. A key aspect of strengthening jaguar conservation governance for representatives from Argentina, Bolivia, Ecuador, Honduras, Paraguay and Peru is to engage with sub-national governments, such as provincial or departmental governments and municipalities on matters related to jaguars. Bringing these actors to the table is necessary, because as decentralised countries, subnational governments have high stakes on matters occurring within their territories, and they are also the first line of response to incidents of jaguar poaching or trade. For these and other countries like Brazil, Costa Rica, France, and Panama, in addition to sub-national governments, many other stakeholders should also be approached such as multi-level national authorities (judicial authorities, customs, armed forces, police), NGOs, businesses, academia and local communities, and partnerships should be established whenever possible.

For representatives from France, park managers and rangers are key actors, as they are responsible for around half of the territory in the Department of French Guiana, as are indigenous communities, who occupy significant portions of land and who interact with jaguars. Countries that already possess a National Jaguar Conservation Action Plan have already identified key stakeholders of importance to jaguar conservation at the national level, and recommended maintaining relationships with them. Representatives from Bolivia and Paraguay highlighted that some of the actors engaged in jaguar conservation in the present do not engage with authorities or only do so at a minimal level, such that new partnerships should emphasize a balanced and inclusive relationship.

Incentivizing information exchange amongst relevant stakeholders:

Building on from the need to strengthen jaguar conservation governance at the national level, interviewees from Bolivia, Costa Rica and Paraguay described how emerging stakeholder partnerships should be based on the exchange of knowledge and information between non-governmental actors and national wildlife authorities. According to these interviewees, information on jaguar populations and their threats should be shared with the authorities to inform conservation actions, and to track progress towards the achievement of the goals set forth in the National Jaguar Conservation Action Plans and broader international biodiversity and environment commitments. These interviewees explained how currently, there is a research wastage due to the lack of protocols and incentives for information sharing between institutions. To address this issue, representatives from Bolivia and Paraguay suggested establishing a national jaguar information management system, which systematically receives the inputs from actors involved in jaguar research and conservation, including data on jaguar populations and mortalities caused by poaching or other unnatural causes. The timeliness of information sharing is crucial, as it would allow authorities to swiftly react to cases of poaching or illegal trade to achieve successful enforcement. A challenge to creating such a system is that actors are sometimes reticent about sharing their data, or lack the incentives to do so.

Table 3: Other National Priorities

Other National Priority	Other National Strategy	Argentina	Bolivia	Brazil	Costa Rica	Ecuador	France	Honduras	Panama	Paraguay	Peru
Jaguar Action Plans	Action Plan implementation, evaluation, and updating										
Strengthening Jaguar Conservation Governance	Engagement and coordination with provincial/municipal governments in jaguar conservation and enforcement										
	Communication and coordination between conservation stakeholders (e.g. authorities, park managers and rangers, NGOs, private sector, academia, communities)										
	Establish partnerships and collaborations involving government institutions										
Incentivizing information exchange	Timely information sharing between jaguar conservation stakeholders										
	Establish efficient jaguar information management systems										

2. Regional Cooperation Priorities for Jaguar Conservation

The priorities for regional cooperation mentioned by CMS Parties' Focal Points in the jaguar Range were similar to those identified at the national level, and they pertained to: 1) strengthening cross-boundary control and enforcement; 2) enhancing regional jaguar conservation governance; 3) leveraging synergies with existing initiatives; 4) fundraising for jaguar conservation actions; 5) increasing knowledge exchange and capacity building; and 6) advocating for jaguar conservation in the region (Table 4).

2.1 Strengthening Cross-Boundary Control and Enforcement:

For most CMS jaguar Range State representatives, a key regional cooperation priority to conserve jaguars involved strengthening the borders between neighbouring countries against illegal jaguar trafficking. This involves not only increasing the presence of law enforcement authorities in bordering areas, particularly remote and porous borders, but also enhancing their equipment, mandate and capacity to arrest and prosecute those breaking the law across borders. Importantly, bilateral or multilateral intelligence sharing on the whereabouts and modus operandi of criminal networks should be facilitated, along with the capacity to conduct joint operations between countries. Therefore, interviewees mentioned the need for continuous joint training of border customs agents, police officers, park rangers, and justice workers on how to recognize illegal wildlife trade and apply the law between bordering countries. In addition to increasing enforcement capacity, interviewees from Brazil, Ecuador, Honduras, and Panama mentioned that some of their protected areas of importance to jaguars lie at country borders, and would benefit from agreements that enable integrated protected area management, including sharing resources and patrols.

2.2 Enhancing Regional Jaguar Conservation Governance:

In addition to all the national-level actors identified above (section 1.3), interviewees mentioned that greater efforts should be made to build stronger relationships with jaguar conservation stakeholders at a regional level. All country representatives agreed that it is necessary for these relationships to start with wildlife authorities in neighbouring countries. Even though interviewees claimed that wildlife authorities in the region generally know each other and have good relationships through numerous events and joint country initiatives, it is often hard to keep track of changes in personnel owing to staff rotations. This causes a loss in the continuity of projects and collaborations, which means that the success of international cooperation relies on stronger communication between countries beyond reliance on single governmental staff. Representatives from Costa Rica, Ecuador, France, Honduras and Panama stated that given that some of their neighbouring countries are not Parties to CMS, additional efforts are needed to engage with these countries and make them part of joint jaguar conservation initiatives. A potential way to achieve this is by organizing events that include all jaguar Range States, as suggested by representatives from Argentina and Costa Rica. Peruvian representatives also highlighted that beyond engaging with jaguar Range States, it is also necessary to strengthen relationships and information exchange with countries that have been identified as destinations of illegally traded jaguar body parts, such as China and the United States.

2.3 Leveraging Synergies with Existing Initiatives:

The Focal Points of CMS Parties in the jaguar Range explained how this decade is witnessing a bonanza of conservation efforts focused on the jaguar. Taking advantage of, and coordinating actions with, existing initiatives can help to increase the impact of jaguar conservation efforts under CMS, while also reducing overlaps and costs. Several interviewees suggested forming an alliance between CMS and the Convention on International Trade in Endangered Species of Fauna and Flora (CITES). Over the past few years, CITES has been collaborating with jaguar Range States to investigate and address the illegal trade in jaguars for international markets. This means that CITES could become a powerful ally on matters related to jaguar poaching under the CMS. According to interviewees, there are multiple benefits from working together with CITES, including the fact that all jaguar Range States are Parties to CITES, and would therefore be accountable for adopting any jaguar conservation measures indicated by CITES, extending the reach of agreements under the CMS. Additionally, country representatives from Honduras and Panama described that CITES has a strong presence and good standing in Latin America, and is perceived as a serious regulatory convention, which would increase the commitment of countries towards jaguar conservation.

Interviewees also mentioned the need to coordinate efforts with the Jaguar Roadmap 2030, an initiative led by the UNDP, Panthera, WCS, and WWF, to secure and connect priority jaguar landscapes and stimulate sustainable development and human-jaguar coexistence across the jaguar Range by 2030. This initiative has so far achieved the endorsement of most CMS Parties in the jaguar Range. While country representatives were generally supportive of the Jaguar Roadmap 2030 and of building synergies with it, many expressed a few concerns regarding the Roadmap's implementation to date. For example, representatives from countries like Bolivia, Brazil, Honduras and Panama cautioned that the Roadmap has not yet been discussed, negotiated or endorsed at different levels of government in a participatory manner, limiting its implementation beyond diplomatic discourse. Interviewees from Bolivia, Brazil, and Paraguay brought up the issue of the current lack of funding for the implementation of the Roadmap, stating that governments do not currently have the possibility of funding the initiative (as has been required), and affirming that some of the Roadmap's objectives will be indirectly achieved through the work that other national organizations are already carrying out on the ground in partnership with the government.

For the case of France, CMS Focal Points described that a key issue surrounding the country's involvement in present and future regional jaguar conservation efforts is the language used in regional discussions and negotiations. As one of the few non-Spanish speaking countries in Latin America, France and its Department of French Guiana have not been adequately integrated into regional discussions on jaguar conservation that are held in Spanish. This means that greater efforts are required to solve language barriers and bring France into the conversation.

CMS Focal Points also mentioned other potential synergies with existing nature conservation agreements or cooperation networks in the region. Interviewees from Argentina, Bolivia, Brazil, Ecuador and Peru mentioned that they already have, or are currently in the process of establishing, formal or informal agreements with other countries to cooperate on matters of relevance to jaguar conservation. For example, Argentina and Brazil have been cooperating for many years on monitoring jaguar populations in their border in the Atlantic Forest, and are in the process of officialising this relationship and knowledge exchange through a bilateral agreement. Brazil has also initiated diplomatic conversations with Peru to build an agreement to conserve biodiversity in their border. Ecuador has established an agreement with Colombia and Peru to repatriate wildlife confiscated across the border with both nations. These existing agreements or diplomatic efforts could be leveraged when exploring the possibilities of establishing a new jaguar agreement. Similarly, Brazilian representatives pointed out that the Mercosur commercial agreement (which includes CMS Parties Argentina, Brazil, Paraguay, Uruguay as full members and Bolivia, Ecuador and Peru as associate countries), contains environmental dispositions that could be strategically used in favour of jaguar conservation. Additionally, representatives from Costa Rica and Honduras mentioned the potential to leverage the support from "Red de Observancia y Aplicación de la Normativa de Vida Silvestre de Centroamérica y República Dominicana" (ROAVIS), a regional forum for cooperation on wildlife law enforcement; and from RedParques, a network of technical cooperation for the conservation of protected areas and wildlife in Latin America.

All country representatives who participated in the interviews mentioned that regional agreements could also benefit from understanding and building stronger ties with jaguar conservation projects carried out by local and international NGOs, many of which are already of regional nature. These projects have already achieved important advancements in the fields of cross-boundary jaguar monitoring, jaguar rescue, rehabilitation and reintroduction, promoting jaguar coexistence and building relationships with communities, and establishing corridors and connectivity. In particular, Ecuador and Panama flagged their recently initiated jaguar-focused GEF projects, managed by UN Agencies and executed by local NGOs, which will deliver benefits to jaguar conservation in upcoming years, in alignment with the objectives of CMS.

In light of the vast potential for CMS efforts to join forces with all these existing jaguar conservation initiatives, representatives from Argentina and Costa Rica suggested the creation of an overarching regional jaguar conservation strategy. Such a strategy would ensure that jaguar conservation actions are coordinated and that all relevant stakeholders have clear assigned responsibilities, reducing unnecessary competition and leveraging international funds.

2.4 Fundraising for Jaguar Conservation Actions:

All jaguar Range State Focal Points to the CMS agreed that sustainable, long-term funding is needed to achieve regional cooperation for jaguar conservation, and that fundraising should be a key aspect of agreements between countries. Importantly, all interviewees stressed that external funds are necessary, as governments rarely possess sufficient public funds to dedicate towards wildlife conservation, particularly given current financial complications brought forth by the COVID-19 pandemic. The representatives from Bolivia, Costa Rica, Paraguay and Peru mentioned that it would be best for external funds and donations destined to jaguar conservation to be managed by external actors chosen by governments, and in coordination with the authorities. This would reduce the bureaucracy of administering funds by providing a dedicated and efficient resource management team. The ability to execute funds in an agile manner was raised as a key priority for representatives from Panama, who recommended that a portion of the funds should be assigned as “petty cash”, made readily available to support urgent jaguar rescue or conflict mitigation efforts.

On the other hand, interviewees from Ecuador, Honduras and Peru mentioned the possibility of managing resources for jaguar conservation internally through environmental government institutions. These countries possess bank accounts that are equipped to receive and manage donations for wildlife conservation. Additionally, these interviewees believed that receiving and managing jaguar conservation funds would allow them to strengthen governmental capacities.

Authorities from Argentina, Bolivia, Honduras and Panama said that institutions managing jaguar conservation funds should aim to distribute the resources to national organizations and actors working on the ground. A funding application system that enables stakeholders to benefit from the funding based on merit would increase the impact and participatory nature of the fund, in contrast to limiting it to a single executing partner. In addition to external funding from donors, representatives from Brazil, Costa Rica, Ecuador, Panama, Paraguay and Peru mentioned the possibility of initiating a trust fund for jaguar conservation, capable of receiving donations from cooperation, public environmental funds, debt swaps, as well as private donors. Panamanian and Paraguayan interviewees also suggested working closer with private businesses and the agro-industry sector to devise an innovative funding model (e.g. payment for ecosystem services, environmental compensation, certifications, etc.).

CMS Focal Points in the jaguar Range suggested the following potential funding sources:

- Global Environment Facility (GEF)
- National Environmental Public Funds
- World Bank
- Latin American Development Bank (CAF)
- European Donors (GIZ, KfW, AECID, etc.)
- United States of America Cooperation (USFWS, INL)
- International NGOs (WWF, WCS, Panthera, etc.)
- Private businesses

CMS Focal Points in the jaguar Range suggested the following funding executing partners:

- Food and Agriculture Organization (FAO)
- United Nations Development Programme (UNDP)
- United Nations Office on Drugs and Crime (UNODC)
- United Nations Environment Programme (UNEP)
- International NGOs (WWF, WCS, Panthera, etc.)
- National NGOs
- Fondo de las Americas

2.5 Increasing Knowledge Exchange and Capacity Building:

For most interviewees, regional cooperation on jaguar conservation should prioritize the exchange of knowledge and technical capacities between countries, setting in place systems for capacity-building and

for conducting joint research projects. In addition to sharing intelligence on cross-boundary illegal jaguar trade (described in section 2.1), country representatives believed that coordinated research efforts and information/technical skills sharing should centre on: implementing successful habitat conservation measures (suggested by representatives from Argentina), monitoring transboundary jaguar populations and their connectivity (Argentina, Bolivia, Brazil, France), exchanging technical capacity for reintroducing confiscated specimens to the wild including genetic testing (Honduras), and successfully mitigating human-jaguar conflict, including the implementation of farmer compensation systems (Costa Rica). Representatives from Bolivia, Costa Rica and Peru further suggested implementing a jaguar information sharing system, which would facilitate mapping out jaguar research projects and uploading key information on jaguar populations and their threats.

2.6 Advocating for Jaguar Conservation in the Region:

Representatives from CMS Parties in the jaguar Range also highlighted the importance of advocating for jaguar conservation at the regional and global level. According to representatives from Argentina, jaguar Range countries should advocate for increasing jaguar conservation status under the IUCN Red List, from Near Threatened to Vulnerable, to more accurately reflect the threat levels facing jaguar populations outside Amazonia. Additional areas of advocacy include building alliances for the large-scale conservation of jaguar habitats and corridors, and addressing the illegal trade in the region by raising awareness of the jaguar as the regions' emblem for conservation.

Table 4: Regional Cooperation Priorities

Regional Cooperation Priorities	Cooperation Strategies	Argentina	Bolivia	Brazil	Costa Rica	Ecuador	France	Honduras	Panama	Paraguay	Peru
Strengthening Cross-Boundary Control and Enforcement	Strengthen border controls against jaguar trafficking										
	Integrated management and enforcement of bordering PAs										
	Training for wildlife authorities and enforcement staff										
	Intelligence sharing on jaguar transboundary trafficking										
	Coordinated management and emergency response on threats from environmental and climate change (e.g. draughts, fires)										
Enhancing Regional Jaguar Conservation Governance	Strengthen relationships with bordering nations										
	Strengthen relationships with all jaguar Range States and incentivize participation of non-Party Range States										
	Strengthen relationships with demand countries										
	Organize meetings to advance jaguar conservation issues										
Leveraging Synergies with Existing Initiatives	Open communication channels to avoid overlaps										
	Form an alliance with CITES										
	Coordinate actions with the Roadmap 2030										
	Surpass language barriers in regional jaguar conservation discussions										
	Leverage existing formal and informal bi-lateral agreements										
	Leverage Mercosur dispositions on the environment										
	Leverage other existing regional conservation networks like ROAVIS and Red Parques										
	Coordinate actions with NGO-led efforts and GEF jaguar projects										
Create overarching regional jaguar conservation strategy											
Fundraising for Jaguar Conservation Actions	Sustainable financing for the long-term										
	Obtain external funds										
	Manage funds externally										
	Efficient resource management teams and petty cash availability										
	Government should make decisions about resource allocation and executing partners										
	National Environment Institutions as Funding Managers										
	Funds should strengthen government capacity										
	Funding application system to enhance stakeholder participation										
Trust funds											

3. Next Steps to Comply with CMS Obligations

CMS has several requirements and offers multiple possibilities for Parties to comply with their obligations to conserve species listed in Appendices I and II.

3.1 Compliance with Appendix I

To comply with Appendix I, Range States must:

- **Legally prohibit** jaguar 'taking' and report to the Secretariat any exceptions granted (e.g. traditional resource user rights, scientific research, etc.). Exceptions must be specific and time-bound.
- **Endeavor to** take measures to 1) conserve and restore habitats; 2) enable migration/movement; 3) prevent risk factors.

3.2 Compliance with Appendix II

To comply with Appendix II, Range States shall endeavour to:

- **Conclude Agreements** - international cooperation to conserve the species and its habitats.

There are multiple options for Range States to build regional agreements in compliance with Appendix II. These include legally binding AGREEMENTS (Article IV (3), Resolution 12.8), Memoranda of Understanding, Initiatives, Concerted Actions and Action Plans (Article IV (4), Resolution 12.8). These options vary in terms of their legal formality, establishment procedures, duration, Secretariat characteristics, staffing, country membership, funding options, progress monitoring procedures, scientific and technical advice, and stakeholder involvement. Jaguar Range States must evaluate these options and their advantages and disadvantages for the particular context of the jaguar, and reach a consensus on which cooperation instruments best fits their needs and current capacities. Some guidance to facilitate this process is provided in Appendix 1 of this report.

The interviews with CMS Focal Points of Parties in the jaguar Range provided some preliminary insights on country's cooperation preferences. For example, representatives from Brazil, Honduras, Panama and Paraguay were generally supportive of establishing legally binding AGREEMENTS because they elevate the political interest and commitment of governments in contrast to non-legally binding options. Even though they recognized that the success of legally binding AGREEMENTS and any other cooperation instruments rely on the existence of funding, they said that legally binding instruments deliver benefits through their mere existence, by facilitating information exchange or fundraising activities. However, representatives from Panama reminded that existing Memoranda of Understanding on other migratory species like sharks have not been able to achieve substantial commitments from countries due to their voluntary nature.

Given governments' funding and staff limitations, interviewees also mentioned that priority should be given to cooperation instruments that are not reliant on those scarce resources. Therefore, Initiatives led by CMS or jointly by CMS and CITES become promising options to reduce dependence on Range States' resources, placing some of the staffing and secretariat costs on CMS' and CITES' Secretariats. Additionally, a joint Initiative between CMS and CITES would include all jaguar Range States as members, due to the wider membership held by CITES, and it would become of interest to all Range and non-Range countries included in these two conventions, facilitating fundraising at a global level. Representatives from Bolivia also supported the option of building time-bound, objective-specific bilateral projects, which are the equivalent to Concerted Actions.

Once jaguar Range countries have had the chance to consider each of the cooperation alternatives independently and discuss and negotiate them as a group, they must undertake the following administrative steps to request the initiation of their chosen cooperation instrument to the CMS.

1. Send an official request (letter) to the CMS Secretariat requesting support with the discussion/negotiation of a cooperative framework.

2. Organize future meetings to advance decision-making on the cooperative framework or cooperation instrument. The meetings should cover the technical aspects of the selected cooperative framework, as well as its substantive aspects (conservation objectives and actions).

3. When selecting the cooperative framework, or instrument of cooperation, the Parties should take into account the timeline of the Conventions involved (CMS, CITES), in relation to future Conferences of the Parties and Meetings of the Standing Committees. Special Initiatives, Concerted Actions and Action Plans must be aligned with these timelines. On the other hand, legally binding AGREEMENTS and Memoranda of Understanding are independently negotiated by States, and have an independent calendar.

4. To initiate a Joint Initiative between CMS and CITES, the desired instrument could be presented at the 74th Meeting of the CITES Standing Committee (France, March 2022), or the proposed resolution and/or other documents be sent to the CITES Secretariat by June 2022 to be considered at CITES COP 19 in November 2022, in Panama, and subsequently by CMS COP14 in 2023 (date to be determined).

Appendix 1 – Guidance on CMS Cooperation Instruments

Table of characteristics of different types of ‘AGREEMENTS’ and ‘Agreements’

Characteristics	‘AGREEMENT’ (Article IV (3))	‘Agreements’ (Article IV (4), Resolution 12.8)			
		Memorandum of Understanding	Initiatives	Concerted Actions	Action Plans
Short description	International, legally binding treaty and work programme.	International, non-legally binding agreement and work programme.	Cooperation framework with a programme of work.	Specific projects or activities, sometimes also leading to AGREEMENTS, MOUs, Action Plans or Initiatives.	Strategic objectives and actions.
Establishment	Can be initiated by CMS COP or Range State Party. Negotiated and ratified independently from the CMS COP.	Can be initiated by CMS COP or Range State Party. Negotiated and signed independently from the CMS COP.	Can be initiated by CMS COP or Range State Party. Adopted through Resolution by the CMS COP.	Can be initiated by CMS COP or Range State Party. Concerted Action adopted by the CMS COP.	Can be initiated by CMS COP or Range State Party. Adopted through Resolution by the CMS COP.
Duration	Open-ended	Open-ended	Open-ended	Time-bound	Open-ended or time-bound
Host/Secretariat	Mostly independent from CMS Secretariat. Co-located with CMS Secretariat or hosted by Range State.	Independent from OR serviced by CMS Secretariat. Co-located with CMS Secretariat or hosted by Range State.	Serviced by the CMS Secretariat, with the potential of including other conventions’ secretariats (e.g. CITES).	Serviced by the CMS Secretariat and promoted by the proponents.	Serviced by CMS Secretariat.
Secretariat staffing	Mostly independent from the CMS Secretariat.	Mostly independent from CMS Secretariat OR serviced by the CMS Secretariat through dedicated or non-dedicated ¹ staff.	Serviced by the CMS Secretariat through dedicated or non-dedicated staff, as well as staff of other convention secretariats involved (e.g. CITES).	Serviced by the CMS Secretariat through non-dedicated staff.	Serviced by the CMS Secretariat through non-dedicated staff.

¹ Dedicated staff = CMS COP-established position or extra-budgetary position specifically for this function as opposed to Secretariat staff also having other responsibilities.

Membership	CMS Parties and Non-Parties	CMS Parties and Non-Parties	CMS Parties and Parties of other conventions involved (e.g. CITES), as well as other relevant stakeholders (NGOs, academia, communities, etc).	CMS Parties	CMS Parties
Funding	Assessed or agreed contributions by AGREEMENT Parties as well as voluntary contributions.	Voluntary contributions by MOU Signatories or CMS COP.	CMS COP and COPs of other conventions involved (e.g. CITES) through budgetary and extra-budgetary resources.	CMS COP through budgetary and extra-budgetary resources.	CMS COP through budgetary and extra-budgetary resources.
Review of work programme and monitoring of implementation	Through regular Meetings of the Parties to the AGREEMENT.	Through regular Meetings of the Signatories to the MOU.	Through independent Range State meetings and through regular CMS COP meetings.	Through CMS COP at regular COP meetings and meetings of the Scientific Council.	No regular reviews.
Scientific and technical advice	Through scientific body of AGREEMENT.	Through scientific body of MOU.	Before submission to CMS COP, through CMS Scientific Council.	Regular review by CMS Scientific Council.	Before submission to CMS COP, through CMS Scientific Council.
Stakeholder involvement	As agreed by the Parties to the AGREEMENT. Observers at Meetings of the Parties. Experts for specific issues.	As agreed by the Signatories to the MOU, e.g. official cooperating organizations also with technical coordination function. Observers at Meetings of the Signatories. Experts for specific issues.	As agreed by CMS COP. Observers at COP(s). Additionally, appointment of species or topical experts by Range States.	As agreed by CMS COP. Observers at COP. As provided in the Concerted Action.	As agreed by CMS COP. Observers at COP. As provided in the Action Plan.

<p>Advantages</p>	<ul style="list-style-type: none"> • Involves a legal commitment from Parties, securing the long term viability of conservation actions and funds. • Stable financing through Parties. • Ownership is solely with Parties. • Can include any jaguar Range States regardless of membership to CMS, as well as other States interested in jaguar conservation (e.g. demand countries such as China or United States). 	<ul style="list-style-type: none"> • Its more voluntary nature can appeal to a wider membership. • Ownership is solely with Signatories. • Can include any jaguar Range States regardless of membership to CMS, as well as other States interested in jaguar conservation (e.g. demand countries such as China or United States). 	<ul style="list-style-type: none"> • The possibility to join forces with CITES offers a wider membership of jaguar Range States participating and the benefit of tackling the issue from two different angles. • Appeals to wide range of governmental donors due to its affiliation to CMS and CITES. • Guaranteed regular meetings due to COP cycles but also dedicated Range State meetings possible. • Possibility to leverage support from CMS or CITES COPs for dedicated staff. • Jaguar conservation is a matter of all Parties to CMS (and CITES) not just of the Range States. 	<ul style="list-style-type: none"> • Since they can simply set out the process for developing more comprehensive tools and instruments, they can be a quick and easy first step for conservation action to agree on between Range States for submission to COP. • Do not require for resources to be immediately available for developing more comprehensive conservation plans. • Provide a good tool for focused planning and time-limited actions for a species. 	<ul style="list-style-type: none"> • Detailed, and usually have a long-term vision for species conservation.
<p>Disadvantages</p>	<ul style="list-style-type: none"> • May pose challenges to include States that lack the means or possibility of entering into a legally binding commitment. • Require financial and human resources for Secretariat services, including fundraising. 	<ul style="list-style-type: none"> • Depend on Signatory dedication, which can make them unstable. • Require financial and human resources for Secretariat services, including fundraising. 	<ul style="list-style-type: none"> • Without CITES, Range States that are not Parties to CMS can have some challenges to formally joining the initiative, but they could contribute informally 	<ul style="list-style-type: none"> • Usually limited in time between two COP meetings. 	<ul style="list-style-type: none"> • Do not require periodic meetings • Require financial and human resources for coordination, including fundraising.

Appendix 2 – Special Species Initiatives

What are they and how do they work?

The CMS Special Species Initiatives are a cooperation framework between Parties across the Range of the species requiring conservation efforts. Initiatives are established through a Resolution of the CMS Conference of the Parties (COP). Examples of such Initiatives are the Joint CITES-CMS African Carnivores Initiative (ACI), established by CMS Resolution 13.4, and the Central Asian Mammals Initiative (CAMI), established by CMS Resolution 11.24 (Rev.COP13). Like MOUs, Initiatives have a Programme of Work that is negotiated by the Range States, which outlines the key actions to conserve the species' habitats, facilitate transboundary movement, and reduce its 'taking'. The Programmes of Work, and their implementation, are reviewed and monitored regularly at Range State meetings, and adopted by the CMS COP. This allows Range States to independently discuss and decide on what activities they want to implement while also retaining visibility of other CMS Parties, which may be interested in supporting the Initiative financially. Initiatives may also involve other partnering conventions and relevant stakeholders, including international organizations or NGOs, which can attend Range State meetings and support the implementation of the Initiative's Programme of Work.

Unlike MOUs, which are normally expected to come up with their own resources for staff and implementation (see Sharks MOU), Initiatives are serviced by the CMS Secretariat and are managed and implemented through budgetary or extra-budgetary resources. For example, CAMI has its own coordinator through a 50% post funded from the core budget of the Convention (established at CMS COP11 in Quito). ACI has a 50% Junior Professional Staff funded by Germany. Partnering institutions can contribute with funds or with the implementation of the activities on the ground.

Potential benefits of a Jaguar Initiative:

- Initiatives are established by COP Resolution, which requires a simpler process than MOUs, which are negotiated independently.
- Following the example of the Joint CITES-CMS African Carnivores Initiative (below), a Jaguar Initiative could be established in partnership with CITES, covering all jaguar Range States.
- Adoption by the CMS COP (and the CITES COP) would make the Initiative relevant to ALL Parties of the Conventions involved rather than just the Range States, thereby extending fundraising opportunities.
- The Initiative would be serviced by CMS (and CITES) Secretariats, meaning that the weight of the administrative and fundraising work would be part of the core budget of the Conventions.
- The Programme of Work is designed by the Range States, with the support of the Secretariats and can be aligned with, or based on, existing efforts like the Jaguar Roadmap 2030.

Examples of Initiatives:

The Joint CITES-CMS African Carnivores Initiative (ACI)



Species: Lion (*Panthera leo*), Cheetah (*Acinonyx jubatus*), Leopard (*Panthera pardus*) and African Wild Dog (*Lycaon pictus*)

Actors: ACI Range States, CMS Secretariat, CITES Secretariat and IUCN Species Survival Commission

Initiation: Initiated by CMS COP12 (2017) and reinforced by CITES Parties at COP18 (2019) and CMS Parties at COP13 (2020).

Programme of Work Objectives: 1) International cooperation, coordination and strategic conservation planning; 2) Land use planning and habitat conservation/restoration; 3) Prey base conservation and restoration; 4) ACI species conservation and restoration; 5) Conflict and coexistence; 6) Sustainable use and management; 7) Illegal trade and illegal or incidental killing; 8) Infectious and zoonotic diseases; 9) Policies and legislation; 10) Capacity and awareness; 11) Knowledge and information.

The Central Asian Mammals Initiative (CAMI)

Species: Wild yak (*Bos grunniens*), Asiatic cheetah (*Acinonyx jubatus venaticus*), Snow leopard (*Uncia uncia*), Saiga antelope (*Saiga tatarica* and *S. borealis mongolica*), and others.

Actors: CAMI Range States, CMS Secretariat.



Initiation: Established at CMS COP11.

Programme of Work Objectives: 1) Transboundary cooperation; 2) Illegal hunting, possession and trade; 3) Industry and infrastructure development (barriers to movement); 4) Overgrazing and livestock competition; 5) Community engagement and sustainable use; 6) Good governance of natural resources; 7) Capacity development; 8) Scientific knowledge; 9) Species specific measures.

Appendix 3 - Interview Notes

ARGENTINA

Interview Participants: Daniel Ramadori and Maricel Canosa

1. What specific actions are necessary to conserve the habitat of the jaguar in your country?

Argentina has an updated National Jaguar Action Plan, and three regional jaguar Action Plans for each of their provinces in the jaguar range. Additionally, they have created a Plan for executing the National Plan. All relevant habitat conservation actions have been prioritized in a participatory way involving a large number of stakeholders, and each action has been assigned to a given actor for its execution. They are now working to evaluate the progress achieved to date. Habitat is a key component of the Plan. Protected areas are generally well established and functional, and corridors have already been designed, though they are still lacking in implementation. Financial support would be the key action required to move those plans forward.

2. What specific actions are necessary to reduce the taking (poaching or illegal trade) of the jaguar in your country?

Matters related to killing due to human-jaguar conflict are also a key component of the National Plan and also need more financing. A key concern for Argentina are news about illegal trade in jaguars in Argentina. There are rumours about potential trade chain networks related to Chinese demand reaching the country, and it would be necessary to take action before those networks target the already small jaguar populations in the country.

3. What do you consider to be specific priority measures to implement CMS in your country? And at the regional level?

Given pressures from the illegal trade, it would be necessary to create bilateral or regional agreements or MOUs to strengthen border controls to prevent traffickers from crossing borders. While the Selva Paranaense biome in the border with Brazil is generally well controlled, there are concerns about the border with Paraguay and Bolivia in the Chaco biome, where there is limited government reach. There have recently been cases of illegal trade in vicuna hides across the border with Bolivia, and so trade is a growing concern. In addition to trade, these MOUs could also include habitat components, particularly since Argentina has gained considerable expertise in jaguar conservation (has good scientific studies and conservation successes), and could provide technical support and advice to other countries. Agreements could be about the exchange of technical support to build on Argentina's lessons. It would also be necessary to generate more dynamic relationships between the different actors (public bodies, academia and NGOs) and a larger budget to (when possible) hold meetings to advance CMS issues. At the regional level, the same, it would be convenient to promote a greater interrelation between Parties and to develop training on certain topics between authorities.

4. What measures could be taken to conserve jaguars particularly in border areas of your country? Are there any existing conservation treaties or actions to protect species in these areas?

The chancellery in the country had previously worked on an agreement with Brazil on transnational conservation issues and endangered species conservation, but there was a change in government that caused a discontinuation of the agreement. It would be necessary to pick up that work, and to have a formal agreement specific to jaguars. There are no other formal conservation agreements with the other neighbouring countries.

- Encourage raising the status of protection of *Panthera onca* in neighbouring countries, in terms of environmental regulations
- Encourage the application of penalties on crimes (In Argentina: trade in products, by-products, hunting, exhibition, interprovincial transit, etc.)
- Formalize and implement joint control and inspection operations - Wildlife trafficking

- Encourage the implementation of pilot projects for production and coexistence with the jaguar (tools for sustainable use in the Bolivian Tucuman jungle, Chaco ecoregion, and Paranaense jungle, ecotourism among others)
- Deepen experiences around the articulation between administrators of Protected Areas of each of the countries
- At the research level, because the Panthera onca population has a permanent flow through the Argentina-Brazil border.
- In the medium term, analyze the possibility of devising a tool similar to a Memorandum of Understanding in order to formalize the technical interactions that already exist at the scientific-technical level and seek their governmental strengthening.

5. What are the main challenges to implement the actions and measures identified above?

Financing training / qualification, institutional strengthening of the agencies responsible for border control and highlighting technical personnel in these areas.

6. Which countries, in addition to those that already make up the CMS group of countries, do you think should be included in regional jaguar conservation efforts within the CMS framework? What could be some strategies to include these countries?

All bordering countries are part of CMS. However, Argentina thinks that a key challenge for CMS is that it doesn't include important countries elsewhere in the range that are crucial for jaguar conservation. A strategy to include these countries would be to partner with CITES, which can use its instruments to encourage non-CMS Parties to comply with CMS-related strategies. They cited the CITES-CMS Carnivore Initiative as a potential example to go forward.

7. Besides these countries, what other actors should be part of the CMS implementation process in your country? At regional level? What should be the role of these actors?

In Argentina it is essential for jaguar conservation actions to include stakeholders in the productive sector (cattle, agriculture). These actors own the majority of the land that is needed to secure jaguar habitat. In the country, there are several NGOs that have already made some good progress in engaging with these groups such as Pro-Yungas and achieved important results. It would be important for those actors to be explicitly included in agreements and projects. The academic sector is also very strong in the country, and there are also multiple NGOs that are quite active. Local communities can also be considered in agreements. It is important to note that Argentina has a decentralized government structure for environmental issues, and each province has responsibilities over its resources and wildlife. Each province also has their own jaguar conservation action plan, on top of which the national action plan was built. Provincial representatives should always be consulted. The academic or scientific sector must always be present to advise decision-makers in the development of conservation measures for different species. Depending on the species in question, countries should be able to convene most of the actors involved in their conservation (state sector, productive sector, NGOs, security forces, judiciary, etc.)

8. Are there any particular projects or initiatives underway in your country with which there would be a potential for collaborations or synergies to implement the CMS?

Pro-Yungas has achieved a partnership with NGOs and the private sector to create protected productive landscapes, that mix agricultural production with conservation to achieve a win-win. This program has been successfully implemented for a long time, and it could be scaled up. There are also collaborations in place for other species that could deliver some lessons learned for the jaguar. Argentina is already working with other countries in the Region with huemul, Red Cauquén, flamingos, shorebirds, sharks, albatrosses and petrels and sea turtles (within the framework of the Inter-American Convention for the Protection and Conservation of Sea Turtles).

9. What is your perspective on the other jaguar initiatives related to CITES and the Jaguar Roadmap 2030 and their adoption and implementation in your country? What would be the best way to align and coordinate jaguar conservation processes within CITES or the Jaguar 2030 Roadmap in your country? And regionally?

It would be necessary for CMS to form an alliance with CITES to benefit from CITES' larger representativeness in terms of range countries. This alliance could then muster Parties support and leverage to achieve the vision of the Jaguar 2030 Roadmap. However, it is still necessary to create a regional (or global) strategy for jaguar conservation that is built from each country's identified priorities (no one size fits all). A lot can be gained from country's national action plans, but it should be an overarching strategy that everyone supports, that integrates CMS, CITES and the Roadmap. It should detail specific actions for each country, and for transboundary areas. This should be a prerequisite before applying for funds.

10. Do you have ideas about potential sources of financing for the implementation of conservation agreements and projects in your country within the context of the CMS implementation?

The government rarely has funds to support public investment, so it would be necessary to raise funds from GEF or other large donors. In Argentina, GEF funds have previously been executed by agencies like FAO or the UNDP or the World Bank. FAO could be particularly beneficial for integrating the productive sector. However, sometimes these agencies can be excessively bureaucratic and slow. It would be necessary to guarantee that there is an efficient resource management team. Although the country has many important scientific institutions and a relatively large number of researchers working with wildlife species, it is difficult to obtain funding for conservation.

11. What would be your preferred type of funding mechanism, a large project specific grant, a trustfund, and who should manage the funds?

External funds would be necessary. Short term projects are not ideal because they do not secure long-term implementation of actions, and the information is generally lost once the project is over, requiring a constant reinventing of the wheel. It would be necessary to maintain continuity and financial sustainability over time. It would be good to allow for a system where there is a transparent and open funding application system for different stakeholders to implement relevant projects in alignment with the jaguar global strategy.

BOLIVIA

Interview Participants: Enzo Aliaga Rossel

1. What specific actions are necessary to conserve the habitat of the jaguar in your country?

The main problem is related to deforestation due to agricultural expansion (primarily soy). Large agricultural corporations are taking over the land, including protected areas and indigenous lands. In many cases, this agricultural expansion is illegal, but in other cases rural farmers and indigenous communities sell or lease their lands to corporations legally. The big problem is that under Bolivian law, the land should have a socioeconomic value, and many do not consider ecosystem services under that designation. Then deforestation occurs under the justification that they are complying with the law by putting the land to work. There is hardly any enforcement, and agroindustry has a strong power in the country, which they constantly use to argue against environmental laws, and they often win. Protected areas are few, and the existing ones are not thoroughly protected.

2. What specific actions are necessary to reduce the taking (poaching or illegal trade) of the jaguar in your country?

Hunting by indigenous communities is legal in Bolivia, but this is often used to the advantage of wildlife traffickers. People often also use the argument of self-defence due to human wildlife conflict in their favour to allow the killing to happen. Decree 44.89 prohibits sport/trophy hunting. The issue is also addressed by the National Jaguar Action Plan. But the key issue is that there is no implementation of these laws and plans. There are no resources for implementation, but it is also responsibility of local municipalities and departmental governments. These entities are often unaware of their responsibilities, or struggle to prioritize the environment over other interests. They increasingly have better communication with the central government, and there are initiatives underway to inform these entities about jaguar conservation and their threats. The Action Plan lacks funding, but it also lacks a clear assignation of responsibilities. The Plan has become a tool for NGOs to design their projects and apply for funds in a way that appears aligned with State priorities, but the government is not always consulted or included in those projects.

3. What do you consider to be specific priority measures to implement CMS in your country? And at the regional level?

The government has a nice jaguar conservation Action Plan, and also nice and updated laws against killing and trafficking. They have also sought to build an ombudsmans (defensoria) for mother earth to bring forth cases of illegal use of natural resources and land, but it failed to be established due to strong opposition from the mining industry. Other dominant industries are cattle, coca, agro-industry, etc. Measures need to strengthen the implementation of existing laws and action plans, more than designing new ones.

4. What measures could be taken to conserve jaguars particularly in border areas of your country? Are there any existing conservation treaties or actions to protect species in these areas?

For Bolivia and jaguars, Brazil and Peru are important bordering nations. Currently, there are strong relationships with Peru on environmental issues. It would be great if that relationship could be formalized with a joint project, including researchers and institutions from both countries. The work should probably occur at the border between the two countries, and include research on jaguar connectivity (genetics), research on jaguar killing and trafficking, and directly strengthening the enforcement capacity of customs through incentives that are able to counterbalance the bribes of the traffickers.

5. What are the main challenges to implement the actions and measures identified above?

All of the above.

6. Which countries, in addition to CMS jaguar range countries, do you think should be included in regional jaguar conservation efforts within the CMS framework? What could be some strategies to include these countries?

Encourage more joint actions with those where there is already an interest or relationship, such as with Peru.

7. Besides these countries, what other actors/institutions should be part of the CMS implementation process in your country? At regional level? What should be the role of these actors?

Bolivia has established an Alliance against jaguar trafficking, which includes government and non-government actors. In reality, there is a constant competition for funds within this alliance. Even though they sometimes organize workshops or events that include the government, they do not always work together or share their data. Information that is relevant for enforcement does not reach the authorities at the right time. Some NGOs don't even have the permits to work in the country. Building a system for information sharing would be good, but it is unlikely to work. They have already tried to do so with the Mastozoology group in Bolivia, asking researchers to disclose their projects and areas of work, and there is a lack of interest to share even the minimal information. It should have some real incentives. A way to do it should be through a stronger control of research and project permits, but currently this is not handled in a very robust way by the government, and there is no central database on projects. Many people operate outside the law.

8. Are there any particular jaguar conservation projects or initiatives underway in your country with which there would be a potential for collaborations or synergies to implement the CMS for jaguars?

There is a jaguar monitoring project in Chaco, that has already delivered several publications but which did not have good communication with the government. WCS also has projects in Madidi. These are important because they are big and transnational. But other than those, there aren't any others. The government has already led the creation of a national and regional alliance for jaguar trade. It would be good to strengthen those efforts, perhaps through organizing events that bring people together, but also to create more incentives for cooperation.

9. What is your perspective on the other jaguar initiatives related to CITES and the Jaguar Roadmap 2030 and their adoption and implementation in your country? What would be the best way to align and coordinate jaguar conservation processes within CITES or the Jaguar 2030 Roadmap in your country? And regionally?

Bolivia has endorsed the Roadmap, and supports the actions contained therein, but the support is currently not based on anything tangible. The Roadmap is an effort by NGOs with very large overheads to get funding, and only a little bit ever reaches the ground. What is good about it is that at least it should enable the NGOs to compete less for funds amongst themselves. The Roadmap should join CMS.

10. Do you have ideas about potential sources of funding for the implementation of conservation agreements and projects in your country within the context of the CMS implementation?

Bolivia (DGBAP) does not have funding (or doesn't know if funding could be allocated) nor is it capable of directly executing projects. In other cases, projects have been executed with the support of FAO, UNODC or other UN agencies that are perceived as more neutral. But DGBAP is a position to provide technical advice, and would like to be involved in the allocation of resources, prioritizing local actors such as national museums or universities. GEF has a big fund for wildlife trafficking that has not yet been applied to Latin America, and it could have a potential.

11. What would be your preferred type of funding mechanism (e.g. timebound grant, a trustfund, international donors), and who should manage the funds?

The best would be to allocate a significant amount of money to Bolivia, in partnership with an executing organization of their choice. This organization should abide by the requirements of the government with regards to resource allocation and areas of work. The ideal would be to pass on the fund to smaller projects that fit a given set of criteria (such as including junior scientists, or operating in areas of particular government interest, delivering a given set of conservation, research and enforcement capacity outcomes). Distributing the funding over a wider group of actors would be the best way to avoid the dominance of traditional NGOs.

BRASIL

Interview Participants: Ronaldo Morato

1. What specific actions are necessary to conserve the habitat of the jaguar in your country?

In recent years, since 2019, Brazil has experienced a surge in illegal deforestation across all of its biomes, including in areas that are important jaguar habitats. Therefore, the main action to conserve jaguar habitat in the country is to stop or reduce deforestation through improved law enforcement actions. An important issue to consider is that while currently there are several laws that indirectly protect jaguar habitats, many of these laws are currently under the risk of being reformed to legalize deforestation. For example, the laws that protect indigenous lands, which are some of the best conserved and most important jaguars habitats in the country, are currently under risk of being altered. This would place additional pressures on existing protected areas. Another key action would be to establish a system of payment for ecosystem services, to incentivize land uses that are more compatible with jaguar conservation. Several states, like the state of Sao Paulo, already have this kind of systems, but the incentive should be expanded at a large scale.

2. What specific actions are necessary to reduce the taking (poaching or illegal trade) of the jaguar in your country?

Jaguar hunting in Brazil mostly responds to local pressures. The main needs and actions to be taken concern strengthening law enforcement, developing media campaigns to spread information about the illegality of taking jaguars amongst the general public, as well as creating education programs particularly for communities living near jaguar habitat.

3. What do you consider to be specific priority measures to implement CMS in your country? And at the regional level?

Brazil already has national and regional jaguar conservation actions plans, which are specific to the different biomes inhabited by the jaguar in the country. The action plans have a budget and assigned responsibilities, and so far have achieved about 56% of the actions according to their preestablished timeline. But these plans, which are specific to jaguars and felids in the country, do not have influence over larger scale legal conversations about jaguar habitats (such as the reversal of forest conservation laws) which could end up having a much larger effect of the species. This means that more pressures need to be exerted on the government to prioritize environmental issues, and international agreements can be a way to do that.

4. What measures could be taken to conserve jaguars particularly in border areas of your country? Are there any existing conservation treaties or actions to protect species in these areas?

Brazil has worked closely with Argentina to conserve jaguar populations in the border in the Atlantic Forest biome. This work started informally, mainly through research and enforcement actors working in the area, but is now in the process of becoming formalized through the Ministry of International Affairs. It involves the integrated management of border protected areas, as well as coordinated research and law enforcement. There is less cooperation on jaguar conservation with other neighbouring countries, but it would be good to build this over time. A priority for any jaguar conservation agreements with neighbouring countries should be to strengthen law enforcement, and to investigate and address the illegal trade in jaguars across borders from a policing perspective. This should particularly occur in the border with Bolivia and northern countries like Suriname, which appear to have higher levels of illegal trade. With countries in the southern border (Bolivia, Paraguay, Argentina), it would be fundamental to build agreements around habitat conservation, particularly in building an integrated and strong response to forest fires, which are decimating jaguar habitats. There should be more draught and fire monitoring, as well as a fast and coordinated emergency response. Similarly, these neighbouring countries could bring up the issue of watershed management in the Brazilian Pantanal, which is a shared biome, and which is drying up and affecting neighbouring countries due to mismanagement of productive lands on the Brazilian side.

5. What are the main challenges to implement the actions and measures identified above?

Funding, but also the long time that it takes to formalize agreements. They generally need to start informally through the actions of relevant stakeholders, and slowly build up to official recognition.

6. Which countries, in addition to CMS jaguar range countries, do you think should be included in regional jaguar conservation efforts within the CMS framework? What could be some strategies to include these countries?

For Brazil, its important to work with all neighbouring countries, including those that are not Parties to CMS (Colombia, Venezuela, Suriname, Guyana). The main strategy to include them is to develop stronger relationships amongst representatives on a personal level. There have already been many joint meetings and often times the people already know each other, and could leverage those relationships to start a new agreement, but moving them forward requires funding and political will, and a strategy and incentives. It could also be relevant to make use of other existing agreements between countries, even non-environmental agreements. For example, many of Brazil's neighbours are part of Mercosur which is a treaty for economic and commercial relationships. Mercosur includes a clause on environmental issues, and this could be used in favour of future jaguar conservation agreements, by tying economic or commercial benefits to jaguar conservation actions. More broadly, jaguar conservation could be tied to broader economic deals as a condition for loans, etc.

7. Besides these countries, what other actors/institutions should be part of the CMS implementation process in your country? At regional level? What should be the role of these actors?

The many institutions involved in jaguar conservation in the country are already identified in Brazil's national action plans, and those actors would need to be included when relevant considering the nuances of each biome. Some important actors to consider at larger scales are Panthera, WWF and WCS, because they operate at the local, national and regional level.

8. Are there any particular jaguar conservation projects or initiatives underway in your country with which there would be a potential for collaborations or synergies to implement the CMS for jaguars?

There are many initiatives underway, also as part of the national action plan. These initiatives have been formally recognized by the government, and through this official recognition they could become a part of wider jaguar conservation goals, including commitments under the CBD, and future commitments through the Roadmap or CMS. It is important for jaguar conservation efforts to be included in the National Action Plan, because that way they obtain several benefits such as preferential access to government funds, and the possibility of joining wider efforts were Brazil is signatory.

9. What is your perspective on the other jaguar initiatives related to CITES and the Jaguar Roadmap 2030 and their adoption and implementation in your country? What would be the best way to align and coordinate jaguar conservation processes within CITES or the Jaguar 2030 Roadmap in your country? And regionally?

Brazil has endorsed the Roadmap, and has also participated in some meetings to discuss its implementation. However, the Roadmap has not been extensively communicated or socialized beyond the national level with state or local governments. As it stands, it requires specific funds to be able to move towards implementation.

10. Do you have ideas about potential sources of funding for the implementation of conservation agreements and projects in your country within the context of the CMS implementation?

In addition to GEF Funds, in Brazil there was previously a fund called “Fundo Amazonia”, which benefitted from country donors like Norway or Germany specifically for Amazon conservation. This large fund used to feed other initiatives and efforts, and could have been a potential source of funds, but it has been cancelled and it is not clear whether it will resume. However, the same countries could contribute towards jaguar conservation.

11. What would be your preferred type of funding mechanism (e.g. timebound grant, a trustfund, international donors), and who should manage the funds?

Brazil already has good experiences with funds managed through the UNDP, and recently WWF has also become an executing partner capable of receiving and managing funds for government related initiatives.

12. In your perspective, which of the CMS cooperation instruments (legally binding AGREEMENTS, Memoranda of Understanding, Initiatives, Concerted Actions, Action Plans) would be most appropriate to achieve jaguar conservation in your country?

It is important to have formal agreements that are legally binding. Often times these agreements cannot count on funding from the governments, but having them on paper already provides many benefits to conservation projects, as they facilitate funding applications, granting research of project permits, etc.

COSTA RICA

Interview Participants: Carlos Mario Orrego and Gina Cuza

1. What actions are necessary to conserve the habitat of the jaguar in your country?

In 2018, Costa Rica conducted a participatory event to map out all areas of importance for jaguar conservation in the country, including core areas and corridors. The study was based on 5 years of continuous camera trapping efforts in different locations. The results were published and a management strategy followed to improve conservation efforts, particularly in areas outside officially designated protected areas, in productive zones, to increase human-jaguar coexistence. Corridors and productive conservation landscapes have already been established by Decree. This strategy was articulated with other national environmental policies such as the National Biodiversity Strategy, as well as broader international commitments. The current need is to update the strategy with new data on jaguar populations across the country.

2. What actions are necessary to reduce the taking (poaching or illegal trade) of the jaguar in your country?

Costa Rica has implemented a strategy to support farmers and ranchers in productive areas to coexist with jaguars. They have established a response unit in partnership between NGOs and the Ministry of Environment (UAFeI) which responds to cases of jaguar attacks and provides farmers support to implement conflict mitigation methods. They have also implemented an insurance program to compensate farmers for any jaguar related losses, supported by the National Institute (financial entity). Currently, this program involves strong public-NGO partnerships, but it needs to be scaled up to other areas of the country. As of now, the program is a pilot study that needs funding and support for replication. It is also necessary to learn from other countries that have implemented similar programmes, about strategies to avoid false claims and to increase compliance and awareness. The response unit must also be strengthened with more financial support.

Costa Rica has been very active on topics related to jaguar trade in international events and with CITES. However, the country currently has considerable information gaps on illegal jaguar trade, and there are few reports about it. The laws on the issue have been recently updated (2012), and all kinds of jaguar hunting are forbidden, with a few exceptions (and always subject to governmental authorization). The current law is even more restrictive than CITES. There is considerable inter-institutional coordination for issues related to illegal wildlife trade. Costa Rica supports and is part of ROAVIS, a network for illegal wildlife trade monitoring between Central America and the Caribbean, and they have established a Costa Rican version of ROAVIS with national law enforcement institutions. It is a national commission for environmental safety. This national network has already been very effective at detecting cases of wildlife trade for other species at airports. The network is working, but it needs strengthening through more funding and training. ROAVIS has provided some training, and they also have an app that facilitates the collection of data on illegal wildlife trade and communication across neighbouring countries, but there is more to do increase communication across countries. Other countries need more support to respond properly to illegal wildlife trade cases across borders.

3. What do you consider to be priority measures to implement CMS in your country? And at the regional level?

It would be ideal for all jaguar range countries to have national jaguar action plan by 2023. Then we should aim for an Americas Jaguar Strategy, that builds on national action plans.

4. What measures could be taken to conserve jaguars particularly in border areas of your country? Are there any existing conservation treaties or actions to protect species in these areas?

See info on ROAVIS above.

5. What are the main challenges to implement the actions and measures identified above?

Funding and capacity for scaling up conservation actions. Strengthening the institutional of neighbouring countries.

6. Which countries, in addition to those that already make up the CMS group of countries, do you think should be included in regional jaguar conservation efforts within the CMS framework? What could be some strategies to include these countries?

All countries in the jaguar range should be included. It is first necessary for CMS sub-group countries to achieve all that they set out to do with their workplan, and to present those results to countries that are not currently involved. This will probably increase chances of them wanting to take part. They have to be able to see the progress. It is necessary to plan an Americas meeting, including all 3 jaguar subgroups, so that each group can present their achievements to date. This could be done in October or November.

7. Besides these countries, what other actors should be part of the CMS implementation process in your country? At regional level? What should be the role of these actors?

The tight network of NGOS, private, and governmental actors which are already working on these issues.

8. Are there any particular projects or initiatives underway in your country with which there would be a potential for collaborations or synergies to implement the CMS?

Same as answer below.

9. What is your perspective on the other jaguar initiatives related to CITES and the Jaguar Roadmap 2030 and their adoption and implementation in your country? What would be the best way to align and coordinate jaguar conservation processes within CITES or the Jaguar 2030 Roadmap in your country? And regionally?

Each of these initiatives has something in common with the others. Those commonalities must be identified and reinforced. The ideal would be that by 2030, there is a joint jaguar conservation plan which includes all existing initiatives.

10. Do you have ideas about potential sources of financing for the implementation of conservation agreements and projects in your country within the context of the CMS implementation?

Some potential ideas include WWF, Debt Swap for biodiversity conservation, the USA embassy, WCS.

11. What would be your preferred type of funding mechanism, a large project specific grant, a trustfund, and who should manage the funds?

A trustfund would be a good idea. The State is not the most agile way of administering the funds, but they have already worked to administer funds successfully together with other national institutions, like the National Parks Foundation. However, if the funds are regional, then a regional entity would be required, like UNDP.

ECUADOR

Interview Participants: Danny Guarderas and Paul Aulestia

1. What specific actions are necessary to conserve the habitat of the jaguar in your country?

Ecuador has jaguars in two different biomes, the Amazon and the Pacific Coast. Populations in the Pacific Coast are isolated and fragmented, and exist in very low numbers. They are at a very high risk of extinction in the next decades. For these coastal populations, it is necessary to first understand the availability of habitat and prey, as well as their population numbers and threat status. It is also necessary to explore connectivity options, and the possibility of establishing corridors that allow them to become more interconnected with Amazonian populations, or with populations across the border with Colombia. This is currently the focus on ongoing projects focused on the jaguar in Ecuador, which are part of the National Action Plan. A key feature of these projects, and something that needs further attention in the coming years, will be to support communities in the coastal jaguar habitat to change their livelihoods to options that are more conducive to sustaining jaguar habitats, such as replacing cattle ranching for agroforestry. The productive matrix needs to change.

2. What specific actions are necessary to reduce the taking (poaching or illegal trade) of the jaguar in your country?

It is necessary to learn more about, mitigate, control and manage human-jaguar conflict. It is also necessary to strengthen operational and technical capacities to address the illegal trade in jaguar body parts. Even though there is not a lot information available on this issue in Ecuador, there are rumours of illegal trafficking taking place in the borders with Peru and Colombia in remote areas, and it would be important to investigate this and strengthen the response and enforcement. It is also important to increase awareness and environmental education focused on the jaguars in communities located within the jaguar range. There have already been several campaigns focused on wildlife trafficking, but more needs to be done to spread the word. The laws in the country are not specific to jaguars, but they do include the protection of wildlife and endangered species like the jaguar. It is illegal to hunt them, but there are some exceptions for indigenous communities when they are in their territories. They are not allowed to sell jaguars or jaguar prey, but this continues to happen, and so more control and enforcement is needed, particularly to control bushmeat hunting.

3. What do you consider to be specific priority measures to implement CMS in your country? And at the regional level?

The current priority, which is currently underway, is to assess the progress towards meeting the objectives of the National Jaguar Action Plan. Similarly, a new effort must be made to update the objectives of the Plan, based on the current context. The Action Plan covers key actions that are important to comply with CMS requirements, including reducing habitat loss and lack of connectivity, addressing jaguar killing, and reducing overall hunting to sustain jaguar prey. In updating the Plan, there will be an even greater emphasis on reducing illegal killing and human-jaguar conflict inside and outside protected areas, and the protection of forested areas and jaguar prey. Ecuador is also interested in building alliances with other countries in the region to conserve jaguars. The focus of these alliances should be on habitat and prey conservation, as well as stopping the illegal trade across borders through enforcement.

4. What measures could be taken to conserve jaguars particularly in border areas of your country? Are there any existing conservation treaties or actions to protect species in these areas?

Currently there are no bilateral agreements with neighbouring countries (Peru or Colombia) on jaguar conservation, but there are several jaguar conservation projects with NGOs that occur near bordering areas. Some of these focus on jaguar monitoring and threat reduction. There is an agreement with both neighbouring countries that is specific to the repatriation of any wildlife that are illegally traded between the countries. More work is needed, particularly for countries to be able to jointly investigate and enforce the law on matters of illegal trafficking of jaguars.

5. What are the main challenges to implement the actions and measures identified above?

The main challenges to achieving bilateral or regional cooperation pertain to lack of coordination and communication within countries. Similarly, the government of Ecuador has limited staff and capacity to focus exclusively on the jaguar.

6. Which countries, in addition to CMS jaguar range countries, do you think should be included in regional jaguar conservation efforts within the CMS framework? What could be some strategies to include these countries?

All countries in the jaguar range should be considered important for achieving CMS objectives. For Ecuador, it would be necessary to engage with Colombia, as a non-CMS Party in the border, but also other northern South American and Central American countries that have vulnerable jaguar populations.

7. Besides these countries, what other actors/institutions should be part of the CMS implementation process in your country? At regional level? What should be the role of these actors?

In addition to the NGOs that play an important role in executing jaguar projects in the country (WCS, WWF), it would be necessary to include the Ministry of Agriculture, as well as the decentralized provincial governments. These entities have control over their territories, and some of them have already made considerable progress in implementing wildlife conservation projects. Others would need to be brought into the table from the start.

8. Are there any particular jaguar conservation projects or initiatives underway in your country with which there would be a potential for collaborations or synergies to implement the CMS for jaguars?

In the course of 2022 and 2023, the Project "Landscape Integration for the Conservation of Wildlife" will be implemented in the country, with an emphasis on jaguars. The project's objective is, "The conservation of jaguars, wildlife and their associated habitats in critical landscapes throughout Ecuador, with lessons learned incorporated into national strategies and widely shared, particularly among countries in the jaguar's range". The project will focus on the development of the following topics: 1. Conserve wildlife and their habitats; 2. Fight wildlife crime; 3. Promote the wildlife-based economy. This project is based on GEF funds, along with other resources from partnering institutions, and is executed by WCS. There are also

other efforts being undertaken by WWF to build corridors for jaguars in landscapes not covered by this project. All these ongoing efforts must be considered to avoid overlaps.

9. What is your perspective on the other jaguar initiatives related to CITES and the Jaguar Roadmap 2030 and their adoption and implementation in your country? What would be the best way to align and coordinate jaguar conservation processes within CITES or the Jaguar 2030 Roadmap in your country? And regionally?

The implementation of the Roadmap 2030 for the conservation of the jaguar must be implemented and be part of the State's planning, in the development of activities for the conservation of jaguars. Communication channels and dialogue tables must be established to align and coordinate these jaguar conservation actions with those of CMS. The same goes for anti-trafficking activities related to the implementation of CITES.

10. Do you have ideas about potential sources of funding for the implementation of conservation agreements and projects in your country within the context of the CMS implementation?

It would be very important to engage countries that could act as donors for jaguar conservation projects, such as the United States, Spain and Germany. These governments have contributed to wildlife conservation projects in the past and could be relevant. Non-governmental organizations that carry out their activities in Ecuador are potential sources of financing for the implementation of conservation agreements and projects in their country within the framework of CMS implementation.

11. What would be your preferred type of funding mechanism (e.g. timebound grant, a trustfund, international donors), and who should manage the funds?

There should be specific external funds to expand the implementation of jaguar conservation projects that will be executed in the country, as well as the implementation of a trustfund that allows the strengthening of existing ones in the country and finance the activities determined in the action plan for the conservation of the Jaguar. In particular, the government of Ecuador has an existing national account that is specifically built for receiving external donations from grants, governments or businesses for environmental issues like climate change, protected area management and wildlife conservation. Currently this account has not received sufficient funds, but it would be ideal that any donations are channelled through that account. The account has its own staff in charge of managing disbursements in coordination with the Ministry of Environment, and it could work together with other executing partners as relevant. Ecuador is now familiar with implementing projects with a GEF model for jaguars specifically. The executing partners (WCS) in this case were selected democratically. Such timebound projects are ok, but it would be best for funds to reach the national biodiversity account so that it can directly strengthen government capacity.

12. In your perspective, which of the CMS cooperation instruments (legally binding AGREEMENTS, Memoranda of Understanding, Initiatives, Concerted Actions, Action Plans) would be most appropriate to achieve jaguar conservation in your country?

There is a benefit to all these types of cooperation, and it would be a matter of negotiating what is in the best interest of everyone. In general, it would be good to establish an agreement that maximizes the options of receiving funding from external sources. Given current government capacities, which are limited, there is definitely an advantage to agreements that are less reliant on government staff and funds. An initiative between CITES and CMS could be beneficial in that regard, if less weight is put on the States.

FRANCE

Interview Participants: Charles-Henri de Barsac

1. What specific actions are necessary to conserve the habitat of the jaguar in your country?

Jaguar habitat is very well preserved in France and it stretches across a large area. The Amazonian Park stretches through the South and centre of the country, so there are no major problems with habitat conservation. However, there are minor pressures from illegal miners, specially gold diggers, in scattered regions of the jaguar territory, who build infrastructure along river banks.

There is another upcoming issue in France. As increasing urbanization borders forest areas, we encounter human wildlife interactions. It is still the territory of the jaguar and it could change its diet if its natural prey is not sufficiently available. It could turn to dogs and livestock instead. Some farmers or residents take justice into their own hands by killing jaguars they believe to be responsible of attacks

2. What specific actions are necessary to reduce the taking (poaching or illegal trade) of the jaguar in your country?

There is a team of the French Biodiversity Office (Office Français de la Biodiversité, OFB) deployed to address poaching and illegal trade. This team conducts police actions to fight any illegal commercial action to remove the jaguar or trade in its body parts (e.g. claws and teeth). All this is illegal and the environmental police is in place to prevent it. As far as hunting is concerned, there are indigenous people who are legally authorized to perform subsistence hunting and they can hunt for jaguars. Only few cases of jaguar poaching have been identified.

3. What do you consider to be specific priority measures to implement CMS in your country? And at the regional level?

Better scientific knowledge of jaguar populations in the region is a key priority. In France, it has been quite complicated to obtain very precise data on the status of populations. Obtaining sound knowledge of the population status in France and in the region would be a necessary starting point. Habitat conservation, in particular forest habitat, is also important.

In France, there are plans to initiate a study on the genetic diversity of the jaguar to better understand population movements by using samples of jaguar droppings. The objective is to find out if there is genetic flow between populations in France and Brazil or between France and Suriname. If there is no genetic exchange, this would threaten jaguar survival. The results from this research are still pending. To carry out this study, the plan is to begin a collaboration between OFB and the Amazonian Park of French Guiana (PAG) in order to have samples from all over French Guiana. Otherwise a lot of staff would be needed for monitoring and collaring across a huge geographic area, which is not possible.

4. What measures could be taken to conserve jaguars particularly in border areas of your country? Are there any existing conservation treaties or actions to protect species in these areas?

This will depend on the scientific results on whether or not there are interconnected jaguar populations across the country's borders. If this is not the case, it will be more complicated because it would mean that there are forest areas that are being poorly managed. These scientific inputs are needed before drafting a conservation or collaboration plan. France has two border rivers, which jaguars can cross easily. There is no reason to assume that there are no population exchanges across border areas with Brazil or Suriname. However, as far as known, there are no formal treaties in place between the countries explicitly addressing jaguar conservation. However there have been some direct joint actions among the French and Brazilian authorities.

5. What are the main challenges to implement the actions and measures identified above?

First of all, sound scientific data to understand the conservation status of jaguars across the region is urgently needed. This work must be undertaken by the three countries. Once completed, it will be possible to determine which actions can be undertaken to foster transboundary populations and to see whether the establishment of corridors is possible.

6. Which countries, in addition to CMS jaguar range countries, do you think should be included in regional jaguar conservation efforts within the CMS framework? What could be some strategies to include these countries?

Surinam and Brazil should be involved as neighbouring countries. Brazil is already involved in the conversations on jaguar conservation, as a CMS Party. Perhaps bilateral discussions could take place between France and Surinam and between France and Brazil. Moreover, we need to have meeting not only in Spanish.

7. Besides these countries, what other actors/institutions should be part of the CMS implementation process in your country? At regional level? What should be the role of these actors?

For France, it is important to improve the management of protected parks and biomes. Since the Amazonian park covers half of France, it is essential to work with park authorities. There are also indigenous communities who have important interactions with nature and jaguars and who must be included in the discussions. And there is also the French Biodiversity Office (Office Français de la Biodiversité, OFB), which is in charge of the environmental police. These would be the main three actors to engage with for France.

As to the role of the actors, the issues pertaining indigenous communities and their role in jaguar conservation still need to be identified. Some associations specialized in the protection of the jaguar would have to be involved in the implementation.

8. Are there any particular jaguar conservation projects or initiatives underway in your country with which there would be a potential for collaborations or synergies to implement the CMS for jaguars?

The jaguar has not been identified as an endangered species in France. However, there are several topics where collaboration could be beneficial on a scientific level, such as understanding the population status of jaguars.

There are several associations that work on human-jaguar interactions and awareness building to prevent people from killing jaguars to protect domestic animals or themselves. Donkeys can alert people when jaguars are nearby, so that animals can be taken to their shelter. Dogs can also alert people, so that jaguars can be scared off with lights or human voices. All these methods are currently tested with farmers in French Guiana.

Jaguars are very territorial and their territory is large (between 100 and 400 km²). In the past, jaguars that wandered into urban environments have been translocated to a distant place. But the problem is that translocated animals always return to their original area. So, translocation is not a solution. It is necessary to learn to live with the jaguar.

9. Do you have ideas about potential sources of funding for the implementation of conservation agreements and projects in your country within the context of the CMS implementation?

Jaguar conservation in inhabited coastal areas is not a concern as hunting is prohibited there. Only indigenous people can hunt the jaguar in other areas. Instead, the problems are related to habitats. The French government funds an association that works to raise awareness about jaguar attacks. The objective is to prevent people from killing the cats. There is human-animal conflict and there is a need to intervene to avoid it and to coordinate actions to prevent it.

10. What would be your preferred type of funding mechanism (e.g. timebound grant, a trustfund, international donors), and who should manage the funds?

At this point in time this is a complicated question. It depends on the situation in the region, and what can be scientifically proved and identified. In France, scientific work is planned, but there is no clear picture yet. If jaguar populations in France are isolated from the rest in South America, because habitats are so deteriorated in border areas that they cannot live there anymore, then there will be a lot of work ahead. However, if there is scientifically proven good connectivity across borders, with a satisfactory genetic exchange with other populations outside of France, there will be less threats in our view. It depends on the status of the population.

The funding mechanism depends on the status of the populations. If it is serious or catastrophic, we need a well-functioning important mechanism with annual transfers. If the status is serious in a certain area, a three year plan could be sufficient. Then we would look at the results. All this is linked to a sound knowledge of the status of the population.

11. In your perspective, which of the CMS cooperation instruments (legally binding AGREEMENTS, Memoranda of Understanding, Initiatives, Concerted Actions, Action Plans) would be most appropriate to achieve jaguar conservation in your country?

Depends on the status of the population too. Action Plan at a regional level could be a good option.

HONDURAS

Interview Participants: Ana Velasquez

1. What specific actions are necessary to conserve the habitat of the jaguar in your country?

Honduras has strong levels of deforestation inside and outside protected areas. Key jaguar habitat is under threat from illegal usurpation by agricultural activities inside protected areas, and due to the construction of roads in key Biosphere Reserves. Protected areas are co-managed by NGOs, a measure that is meant to increase the capacity to protect these spaces, and there are also several multi-sectoral task forces to increase response to deforestation. Nevertheless, the threats are constantly beyond the capacity of all institutions and more funding is needed to strengthen enforcement.

2. What specific actions are necessary to reduce the taking (poaching or illegal trade) of the jaguar in your country?

The critical need is for wider environmental education and awareness about the importance of jaguar conservation. There is also a need for improved infrastructure to rescue and rehabilitate jaguars that are illegally traded. There is evidence that jaguars are poached in the country, and also that Honduras often acts as a transit country for illegal trade in jaguars including live specimens. There have been several seizures of live animals, and there are only two centres capable of taking care of those individuals, so more support is needed to strengthen those centres and capacities for reintroduction. In addition to building a stronger network of rescue centres and jaguar management institutions, it would be important to enhance the infrastructure of law enforcement, with more equipment and vehicles for patrols, and for more check points in key areas.

3. What do you consider to be specific priority measures to implement CMS in your country? And at the regional level?

A key area that requires more cooperation at a regional and international level pertains to knowledge exchange with regards to jaguar population genetics. There are two rescue centres that constantly receive animals that have been illegally traded, one of them is specific to jaguars and big cats. The goal of these centres is to reintroduce the animals to the wild, but a key problem is that they lack the capacity to conduct genetic analysis to determine the origin of the specimens. It is unclear whether they are from wild populations in Honduras, or whether they were exported from other countries, or raised in captivity. Some of the individuals present genetic mutations which appear to indicate malpractices related to captive breeding. It would be important to build agreements with countries like Peru or Brazil, which have more experience conducting jaguar reintroductions, as well as genetic analysis to determine jaguar origins and relatedness. Technological exchange is vital.

4. What measures could be taken to conserve jaguars particularly in border areas of your country? Are there any existing conservation treaties or actions to protect species in these areas?

There are protected areas in the borders with Nicaragua and Guatemala, but those areas are severely threatened with deforestation and other illegal activities. It would be necessary to establish an agreement to enhance law enforcement in these boundary areas, through resources and park rangers corresponding to all involved nations. Something similar has been done with marine species, and it would be necessary to replicate such a process for terrestrial species and for the conservation of key habitats.

5. What are the main challenges to implement the actions and measures identified above?

The key challenge is the lack of funding for jaguar conservation in the long term. There is also a need for more capacities within government institutions to enforce the law with regards to habitat, but also with regards to managing illegally traded specimens and cases of human-jaguar conflict. Similarly, more

coordination is needed with neighbouring countries. Sometimes it is unclear who the people in charge of wildlife in the different countries are, and it is difficult to reach out and coordinate actions, so more formal processes would be helpful.

6. Which countries, in addition to CMS jaguar range countries, do you think should be included in regional jaguar conservation efforts within the CMS framework? What could be some strategies to include these countries?

For Honduras, it is absolutely crucial to include Guatemala and Nicaragua, two neighbouring countries which are not currently Parties to the CMS. Without them, any regional agreements would lose meaning. A key strategy to bring them to the table would be to work together with Costa Rica to build stronger relationships with them. There are several conservation initiatives in Mesoamerica which could also serve as leverage to build stronger connections with these countries. For example, there is RedParques, which is a strong platform which already brings all countries in the region together to discuss matters related to wildlife and environmental conservation. This platform could serve as a tool to insert topics related to the CMS. The efforts already made in the context of the Mesoamerican Biological Corridor could provide another entry way to bring countries together. What would be needed is a formal request for participation of those countries. A regional agreement could provide the platform for that formal procedure.

7. Besides these countries, what other actors/institutions should be part of the CMS implementation process in your country? At regional level? What should be the role of these actors?

Indigenous communities are a key player that should not be omitted from any agreement. The same applies to all the partner NGOs that co-manage protected areas that are of importance to jaguar conservation. There are at least other nine governmental institutions that are always included in formal conservation processes, such as the armed forces, the police, the ICF, and others.

8. Are there any particular jaguar conservation projects or initiatives underway in your country with which there would be a potential for collaborations or synergies to implement the CMS for jaguars?

There are two main projects of relevance. The Programme for Jaguar Conservation, which is managed by the armed forces and which focuses on the rescue and reintroduction of jaguars into the wild, and the Programme for the Conservation of Wildlife in Honduras. Both initiatives are carried out by the government with partnering institutions, and have several protocols and actions in place to achieve jaguar conservation in the country.

9. What is your perspective on the other jaguar initiatives related to CITES and the Jaguar Roadmap 2030 and their adoption and implementation in your country? What would be the best way to align and coordinate jaguar conservation processes within CITES or the Jaguar 2030 Roadmap in your country? And regionally?

Working together with CITES would be of vital importance, as it would be yet another strategy to incentivize non CMS Parties, neighbouring Guatemala and Nicaragua, to participate in projects related to regional jaguar conservation. Additionally, CITES has an excellent reputation in Honduras, and it is one of the most efficient treaties in the country which has assigned staff and clear infrastructure and procedures. It is also respected, as a regulatory entity, so it would increase the level of commitment of actions to conserve jaguars. The Roadmap is also important, but currently it has not been a matter of internal discussion and would require more efforts to build awareness about its actions and to find ways to coordinate activities.

10. Do you have ideas about potential sources of funding for the implementation of conservation agreements and projects in your country within the context of the CMS implementation?

The countries' budget for wildlife is very limited, so it shouldn't be relied upon. However, there is a small fund that has been specifically built for protected area management and wildlife conservation. It was established through the Law on Forests. It is made up of public funds, as well as contributions from donors and the private sector. It works very well and it is transparent. Any external funds for jaguar conservation could be received by this fund.

11. What would be your preferred type of funding mechanism (e.g. timebound grant, a trustfund, international donors), and who should manage the funds?

The ideal would be for external funds to be managed through the existing national fund for protected areas and wildlife mentioned in question 10. The resources in this fund are usually managed and executed by the organizations which co-manage protected areas in the country. Other organizations or institutions can also apply for funding from this fund to execute projects. The structure is in place, and it would be the ideal way to fund jaguar conservation actions.

12. In your perspective, which of the CMS cooperation instruments (legally binding AGREEMENTS, Memoranda of Understanding, Initiatives, Concerted Actions, Action Plans) would be most appropriate to achieve jaguar conservation in your country?

Given that CMS along with CITES is one of the few conventions with a regulatory power, it would be best to encourage countries to enter a binding agreement that has all the responsibilities stipulated and assigned. This would also elevate the political interest.

PANAMA

Interview Participants: Shirley Binder and Erick Didier Nunez

1. What specific actions are necessary to conserve the habitat of the jaguar in your country?

Panama has a strong and large system of protected areas, including 125 areas and covering about 33% of the territory. Additionally, there is a network of private reserves, that adds to the connectivity of the system. Nevertheless, it is still necessary to improve the integration and management of productive and protected landscapes, in a way that is more compatible with the needs of wildlife. This is particularly important, as many protected areas are inhabited by people, and their productive use of the land must be sustainable.

2. What specific actions are necessary to reduce the taking (poaching or illegal trade) of the jaguar in your country?

Human-jaguar conflict inside and outside protected areas is a key issue, that causes the majority (98%) of recorded jaguar mortalities over the past two decades. There is also growing concern about the emergence of illegal trade for Asian markets, with anecdotal reports emerging from around the country through the community networks of the NGO Yaguara Foundation. This same NGO has been involved in human-jaguar conflict mitigation projects for a long time, establishing pilot farms, where innovative conflict mitigation measures has been implemented along with environmental education workshops targeted at cattle ranchers. This project has worked extremely well, and it is now necessary to scale-up these efforts beyond pilot farms, across the entire jaguar distribution. Panama also has funds to support cattle ranchers against losses caused by depredation (like an insurance scheme), but it is still necessary to spread awareness about this opportunity across the country.

3. What do you consider to be specific priority measures to implement CMS in your country? And at the regional level?

The key priority is to scale up existing successful jaguar conservation projects and landscape management efforts across the national territory, including the productive sector (small and large-scale cattle ranchers) but also communities living in remote areas and near or inside protected territories. This can be achieved by building a stronger jaguar conservation governance, from the top levels of government to the involvement of local communities. The key would be to reduce the distance between conservationists, the government, the productive sector and local communities, and to spread information about jaguar conservation and environmental education more generally so that people learn who to call and what to do in the case of finding a jaguar or experiencing human-jaguar conflict. Currently, people may kill jaguars without knowing that there are better alternatives and government support.

4. What measures could be taken to conserve jaguars particularly in border areas of your country? Are there any existing conservation treaties or actions to protect species in these areas?

In the border with Costa Rica lies the Amistad International Park, a large protected area which is also a biosphere reserve. There are several conservation plans for this area that have been built along with Costa Rican authorities. This Park is well managed and it is an important conservation area for the jaguar and its connectivity at a regional level. However, there are no specific jaguar conservation plans in this area. The border with Colombia has another important protected area, Darien National Park. The NGO Yaguara monitors jaguars in this area and works together with local communities living in and around the Park. However, currently there are no joint jaguar conservation initiatives in this area together with the Colombian government, which would be beneficial.

5. What are the main challenges to implement the actions and measures identified above?

A key challenge is funding. Currently, the legislation is strong and there are also important institutional partnerships in place to apply the law, including strong relationships with the environmental police and the justice sector and there have been joint operations in the past. However, more funds are required to guarantee a fast and effective response to cases of human-jaguar conflict. Funds are greatly needed to implement conflict mitigation and awareness building measures directly on the ground where it matters most. Similarly, it would be crucial to rapidly increase awareness about existing measures to address human-jaguar conflict, to prevent retaliatory killing.

6. Which countries, in addition to CMS jaguar range countries, do you think should be included in regional jaguar conservation efforts within the CMS framework? What could be some strategies to include these countries?

It would be extremely important to include Colombia, which is not currently a Party to CMS. Colombia is relevant as a neighbouring country, and also due to its location right at the centre of jaguar connectivity between South and Central America. The best strategy to include them would be to raise funds for joint projects, using the charisma of the jaguar and the current political environment surrounding the species as a way to engage Colombia in joint agreements. If there are no funds, it is unlikely that any actors would want to be involved.

7. Besides these countries, what other actors/institutions should be part of the CMS implementation process in your country? At regional level? What should be the role of these actors?

In addition to Yaguara Foundation, which is the leading NGO on jaguar conservation issues in Panama, there is another local NGO called SOMASPA which also has a few initiatives related to jaguar conservation. More importantly, it would be essential to explicitly consider the productive sector, specifically the cattle ranching industry. The same applies to local and indigenous communities. There have already been several initiatives to bring these actors together to the table, but these actors would need to be formally included in any future jaguar conservation efforts.

8. Are there any particular jaguar conservation projects or initiatives underway in your country with which there would be a potential for collaborations or synergies to implement the CMS for jaguars?

Panama is in the process of starting a large GEF project focused on jaguar conservation, through the establishment of public-private partnerships. This is an ambitious project, which includes elements of human-jaguar conflict mitigation and conservation awareness building, as well as large-scale jaguar monitoring through camera traps, and even restoration of jaguar habitats in key connectivity areas in the productive/protected landscape. The main actors involved are the Ministry of Environment and Yaguara Panama Foundation as the executing partner. Funds are managed by UNEP.

9. What is your perspective on the other jaguar initiatives related to CITES and the Jaguar Roadmap 2030 and their adoption and implementation in your country? What would be the best way to align and coordinate jaguar conservation processes within CITES or the Jaguar 2030 Roadmap in your country? And regionally?

It would be particularly useful for CMS to join efforts with CITES, as CITES not only has a larger number of range State Parties, but it is also perceived as being more legally binding. Therefore, a joint initiative

would have a greater strength in the region. Panama believes that the actions that they are currently carrying out at the national level and locally within local communities indirectly benefit the Roadmap 2030.

10. Do you have ideas about potential sources of funding for the implementation of conservation agreements and projects in your country within the context of the CMS implementation?

Currently, it would be important for funds and staff assigned for future jaguar conservation projects to be external, including international donors or GEF.

11. What would be your preferred type of funding mechanism (e.g. timebound grant, a trustfund, international donors), and who should manage the funds?

It is important for funds to be readily available and for disbursements to be agile. Most of jaguar conservation actions, such as mitigating retaliatory jaguar killings, require a swift and immediate response, and it would be counterproductive to have funding that requires excessive bureaucracy. Whatever the funding arrangements are, there should be a section of the funds that is allocated as petty cash, to enable a fast response. Panama is now having experience in the application of a large GEF fund together with UNEP, and so far the process has worked well, but in the future, it would be good if at least a portion of the funds are managed by smaller local NGOs to enable such fast responses and fast execution. It would also be necessary for future funding schemes to be sustainable, so Panama would support the development of some kind of innovative funding solution. Panama has also developed experiences with environmental trustfunds in the past. Currently, there is a trustfund for the management of protected areas, which could become a model.

12. In your perspective, which of the CMS cooperation instruments (legally binding AGREEMENTS, Memoranda of Understanding, Initiatives, Concerted Actions, Action Plans) would be most appropriate to achieve jaguar conservation in your country?

It would be extremely important that any future agreement for jaguar conservation is tied to existing funds, or includes fundraising as a key commitment in the agreement. Otherwise, it will not work. Similarly, Panama expressed a preference for legally binding agreements, due to their greater effectiveness in securing countries' commitments. They mentioned that the MOU for sharks has not received sufficient attention/implementation, and based on that experience, a more formal commitment would be required.

PARAGUAY

Interview Participants: Estela Gomez, Dario Mandelburguer and Hector Vera-Alcaraz

1. What specific actions are necessary to conserve the habitat of the jaguar in your country?

In Paraguay, jaguars have a species-specific law (Law 5302/2014 "Law of the conservation of Panthera onca), and they are also benefitted indirectly by other environmental laws (Law 96/1992 "Wildlife Law", Law 422/1973 "Forests Law", Law 352/1994 "Protected Areas Law"). Among these laws, the Forests Law dictates that 25% of all productive lands must be left aside as natural areas. These areas, which cross productive lands, may serve as corridors for jaguars and other wildlife. These mandatory forest reserves have an official designation, but their specific location depends on how farmers wish to allocate their lands, rather than on a formal process of ecological monitoring to determine their functionality for jaguar needs. Information on terrestrial habitats and other conservation actions has been collected in a proposed subnational strategy for biological corridors in the Chaco biome in Paraguay. These initiatives must be consolidated with national environmental regulations. In addition, ecological information is needed to determine whether these areas are functional for jaguars, and to build more robust land use planning and zoning measures that best align with jaguar conservation. Research should focus not only on the jaguar, but also on the status of its different types of habitats and of its natural prey and its competition with other predators like the puma. The same applies to protected areas, which are also lacking in long term jaguar monitoring. This lack of information not only affects potential corridors, but also protected areas. PAs are officially designated and have staff, but they lack more resources to monitor and protect jaguars, especially in the buffer zones which include neighbouring farms and other productive uses.

For Atlantic forest populations, the main issue is habitat fragmentation. Conservation strategies in this biome should focus on connectivity, and a crucial aspect for connectivity is first ensuring the titling of

protected areas. Many of the protected areas in the biome have not been formally designated, and are subject to conflict over land tenure with cattle ranchers and the agroindustry sectors. To achieve this, environmental institutions in Paraguay must be strengthened, prioritizing the transversality of conservation actions. Following up with existing legal norms and processes is also necessary. Once these areas are designated, it is necessary to establish corridors, based on existing connectivity strategies that have already been designed, and which make use of existing riparian protected forests. In this biome, the land is currently occupied by urban areas and soy plantation in private lands, but it has been found that these areas can also support jaguar connectivity if land owners are included and willing. For the Chaco biome, habitat is still available, but it is being rapidly degraded due to recent deforestation. This biome also has issues with the lack of formal designation of protected areas. Here, more solid enforcement of deforestation is needed, along with clearer land use planning and zoning.

2. What specific actions are necessary to reduce the taking (poaching or illegal trade) of the jaguar in your country?

Paraguay has a very strong legislation for jaguar conservation, which prohibits the taking of the species (Law 96/1992 "Wildlife Law"). However, sometimes there are issues with human-jaguar conflict in areas with cattle ranching, and this is a growing issue in the Chaco biome. Therefore, Paraguay has designed a Management Plan for *Panthera onca* in virtue of Law 5302/2014 "of the conservation of *Panthera onca*"), which includes a protocol to address human-jaguar conflict, including the implementation of different conflict mitigation measures, like fences and lights, as well as a potential farmer compensation system. The Ministry of Environment and Sustainable Development, with the support of several GOs, academia and NGOs, like WCS and WWF, have already led workshops and other awareness building activities with livestock producers on the importance of jaguar conservation, as an activity included within the Management Plan for *Panthera onca*. These actions need to be approved by binding legal regulations and additional support is needed to scale up those actions, and provide actual incentives for farmers to comply. Increasing awareness and education about conservation issues is also important. On the other hand, the Law for the conservation of *Panthera onca* suffers from some drafting and conceptualization errors that affect its management. Therefore, to correct these errors, the Ministry of Environment and Sustainable Development has promoted some modifications to this Law that have not yet been approved as binding norms.

3. What do you consider to be specific priority measures to implement CMS in your country? And at the regional level?

The key action that is needed is to provide incentives for farmers to peacefully coexist with jaguars and comply with existing jaguar legislation. This should be achieved through the establishment of a certification scheme involving the payment for environmental services for the declaration of private lands as refuges for *Panthera onca* (habitat conservation), that provides a premium for farmers that allow jaguars to safely move through their farms. It would be ideal if this Certification system could be endorsed and branded by the CMS, together with the establishment of a protocol that ensures the compliance with jaguar conservation and the traceability of the products. This would incentivize farmers to keep jaguars in their lands and to make existing corridors more effective.

The strategies to control habitat loss and hunting that are stipulated in the Management Plan for *Panthera onca* and the Law for the conservation of *Panthera onca*, have had a slow implementation (though they are also quite recent). Responsibilities have been assigned, but there hasn't been any funding made available to execute the actions. CMS could support the implementation of these existing initiatives. Additionally, CMS could also support jaguar monitoring and scientific research on jaguar populations and their threats across the country, by making funds available to do this work. Jaguar monitoring should be a key measure. There are some existing jaguar monitoring efforts carried out by NGOs like WCS and the Chaco Trinacional Initiative, and these have achieved significant progress, but there are no synergies with the government and the information rarely reaches the authorities. CMS could also support to strengthen those partnerships and ensure a more streamlined knowledge exchange. The research outputs that are collected by the NGOs at a regional level should ideally help towards government reporting of jaguar conservation outcomes for CMS and other intergovernmental targets. Currently, government actors are not fully integrated into regional initiatives.

4. What measures could be taken to conserve jaguars particularly in border areas of your country? Are there any existing conservation treaties or actions to protect species in these areas?

Paraguay has already contributed to jaguar populations in other countries through a program that provides live specimens from Paraguay to Argentina, to assist jaguar introduction efforts in habitats where they have been previously extirpated. Paraguay also has a series of protected areas (mixed with productive uses) across the border with Bolivia, extending the reach of Bolivian bordering national parks. It would be beneficial to formalize jaguar conservation agreements across the borders, particularly with Bolivia and Argentina. It is necessary that any regional initiatives focus at the sub-regional level, in specific biomes such as the Chaco and Atlantic Forest, due to their stark differences in threats, jaguar population status, as well as in potential partner countries. Successes in one biome do not necessarily equate to successes in the other. Agreements should be based on the reality of each biome. In particular, the conservation of the Atlantic Forest biome is highly fragmented, so the viability of connectivity with neighbouring countries requires specific actions for this biome.

5. What are the main challenges to implement the actions and measures identified above?

What is needed the most is funding and resources to be able to implement all the activities that have already been identified in the Management Plan for *Panthera onca*. Specifically, sustainable funds should be allocated to human-jaguar coexistence in productive areas, and awareness building. Additionally, it is necessary for jaguar conservation actions to consider implementation in the short, medium and long term. Many projects lack the continuation and sustainability beyond the momentum of the first few years.

6. Which countries, in addition to CMS jaguar range countries, do you think should be included in regional jaguar conservation efforts within the CMS framework? What could be some strategies to include these countries?

In the case of Paraguay, all neighbouring countries are parts of CMS and the subgroup of countries.

7. Besides these countries, what other actors/institutions should be part of the CMS implementation process in your country? At regional level? What should be the role of these actors?

It would be very important to include the participation of academia to provide the research inputs that are necessary, as well as local governments and municipalities, particularly as any habitat related measures would affect the territories under their jurisdiction. Actors like WCS and the Initiative Chaco Trinacional have already been working in Paraguay for a long time, and have built networks and relationships with local communities. These actors should be considered.

8. Are there any particular jaguar conservation projects or initiatives underway in your country with which there would be a potential for collaborations or synergies to implement the CMS for jaguars?

Some NGOs like SPECIES, Fundación Moises Bertoni, WCS y WWF have been working for several years on jaguar conservation in the country. It would be important to talk with them to understand the scope of their activities, and whether there would be a potential to build synergies with the actions that they have already undertaken.

9. What is your perspective on the other jaguar initiatives related to CITES and the Jaguar Roadmap 2030 and their adoption and implementation in your country? What would be the best way to align and coordinate jaguar conservation processes within CITES or the Jaguar 2030 Roadmap in your country? And regionally?

Paraguay has endorsed the Roadmap 2030 and also provided inputs to CITES on matters related to jaguars. The country supports the actions planned in the Roadmap, but currently its implementation is dependent on identifying funding sources. The Roadmap 2030 requested countries to contribute \$8 million USD to implement their stipulated actions, but it was not possible to comply with that request. However, several of the jaguar conservation actions that are already taking place in the country are aligned with the Roadmap and should contribute indirectly. Specific funds would be needed to build Roadmap specific actions that comprise broader regional conservation goals. The Roadmap 2030 is a positive initiative. The more efforts that exist for jaguar conservation, the better. It would be good to integrate the three different parties, and to reach a synergy with these actors, particularly on actions that are clearly relevant for the

three institutions. However, CMS should retain its independence on key topics pertaining to jaguar conservation, habitat connectivity, etc. CMS should have its own strategies, initiatives and identity.

10. Do you have ideas about potential sources of funding for the implementation of conservation agreements and projects in your country within the context of the CMS implementation?

Public funds from the government are extremely limited, so any funding would most likely need to be external. The Jaguar Law and Management Plan contemplate mechanisms to secure public investment from the government for jaguar conservation. But these mechanisms have not yet been implemented. These instruments could help leverage public funds for the implementation of CMS.

11. What would be your preferred type of funding mechanism (e.g. timebound grant, a trustfund, international donors), and who should manage the funds?

Funding schemes would need to come from external funds, such as international donors. It would be best if the funds are administrated by a third party, such as UNDP, UNEP, FAO, CAF, to reduce bureaucratic challenges and delays related to state administration. Paraguay has had good experiences working with UNDP as an implementation partner, particularly because they have an office in the country, which makes it easy to coordinate. Recently WWF has also become officially recognized as an execution partner that can receive funds on behalf of the government. Having NGOs as executing partners of fund has the benefit that they are faster because they don't have as much bureaucracy. The problem is that it is difficult for NGOs to consider the government as a partner at the same level. It would be ideal for governmental staff and technicians to be involved in the co-production of projects and in the co-management of funds, and not just on the administrative work. The government has technical/scientific personnel that can actively support the execution of projects, so that the information effectively reaches the State and the reporting of requirements is facilitated, within the framework of CMS.

12. In your perspective, which of the CMS cooperation instruments (legally binding AGREEMENTS, Memoranda of Understanding, Initiatives, Concerted Actions, Action Plans) would be most appropriate to achieve jaguar conservation in your country?

It would be good if there was an option to do a legally binding agreement with countries in the region to step up jaguar conservation actions with a joint vision, but it would be necessary to have access to external funds. For Paraguay, it is necessary to forge experience and knowledge of the actions that have already been effective in other countries within the framework of CMS, such as the initiatives on mammals in Africa and marine cetaceans. Binding instruments offer the possibility of raising funds to be implemented as effective actions for the jaguar, Initiatives and Action Plans, among others.

PERU

Interview Participants: Doris Rodriguez

1. What actions are necessary to conserve the habitat of the jaguar in your country?

Peru has recently gone through the process of creating the country's National Jaguar Action Plan, which sets out clear actions for jaguar conservation in the next decade. The Plan was created through a series of facilitated workshops, and was highly participatory, including representatives from the government, academia, NGOs, and local communities. It is currently pending its final approval. A key issue identified in the National Plan is that while the laws in the country are strong, and they adequately protect the jaguar, the implementation of the law is not very strong. This is especially the case in remote Amazon areas, including transboundary areas, that are very hard to reach and enforce. There are 10 different regions in the Peruvian Amazon where the jaguar inhabits, and coordinating actions to protect jaguar habitats with these different regional authorities is often a challenge due to their geography, but also due to constant staff rotation.

In terms of habitat, Peru relies heavily on regional conservation areas, which are managed by the Amazon's regional authorities, which are under a different category than the official national system of protected areas. The regional designation of these areas is important, because management and enforcement costs are shared with each of the regions' authorities and the national government, and ultimately, this results in more effective enforcement. However, coordinating jaguar conservation actions

with these decentralized areas can also represent a challenge, particularly when thinking about setting up future connectivity.

2. What actions are necessary to reduce the taking (poaching or illegal trade) of the jaguar in your country?

Human-jaguar conflict is not a large issue in Peru as it is in other countries, and there are very few reports of it. However, the illegal trade in jaguar body parts has become a growing concern as there have been several reports documenting the illegal sale of jaguar products in urban and touristic areas, but also in more remote locations. However, jaguar killing appears to be an opportunistic activity. It is important to learn more about the illegal trade in jaguars, and to work with neighbouring countries like Bolivia and Brazil, particularly as the country borders are very porous.

3. What do you consider to be priority measures to implement CMS in your country? And at the regional level?

A key priority is basic jaguar population monitoring. The National Action Plan identified very large knowledge gaps in terms of the status of jaguar populations in many areas of the Peruvian Amazon, which have never been evaluated for jaguar presence. Similarly, the Action Plan has also established the need of producing a national jaguar population estimate, and to identify the areas to establish corridors and core habitats to secure its habitat. Similarly, any help with the implementation of the National Plan would be appreciated. The Plan has a budget, but there are so far no funding sources for the implementation. Each actor involved will have to secure their own means.

4. What measures could be taken to conserve jaguars particularly in border areas of your country? Are there any existing conservation treaties or actions to protect species in these areas?

It is necessary to strengthen borders, as they are so large that they are currently very difficult to manage and secure. The Chancellery has begun an effort to strengthen relationships with Brazil on the protection of natural resources in the border and to monitor species, but so far there hasn't been a formal agreement. Peru has good relationships with Bolivia, and they have already worked together on the cross-boundary conservation of other species like the Titicaca frog, so these efforts could be increased for the jaguar, particularly as the border with Peru and Bolivia appears to be an important location for jaguar trade.

5. What are the main challenges to implement the actions and measures identified above?

A key challenge is the lack of funding, and relatedly, the lack of dedicated staff to oversee projects that are related to the Ministry of Environment or SERFOR. Currently, the authorities rely heavily on NGOs or external consultants to be able to manage the projects that they have under their belt. Any new additions of responsibilities emerging from commitments with the CMS would require a dedicated staff, or someone who can devote time into the implementation.

6. Which countries, in addition to those that already make up the CMS group of countries, do you think should be included in regional jaguar conservation efforts within the CMS framework? What could be some strategies to include these countries?

Peru has also identified the need to build stronger relationships with countries that are a destination of jaguar products that may originate from the country to facilitate the exchange of trade related information. For instance, Asian countries like China have been seen as a priority. Additionally, Peru has made a commitment to jaguar conservation as part of the Lima Agreement (resulting from the First High Level Conference on IWT), and so they are interested in working on the matter at a regional level.

7. Besides these countries, what other actors should be part of the CMS implementation process in your country? At regional level? What should be the role of these actors?

Indigenous communities are very important, because they have large territories in the jaguar habitat. Engaging with them is crucial, and important efforts to consult with them have already taken place for the creation of the National Action Plan. Similarly, the government has experience working together with regional governments, justice staff, police, customs, academia, NGOs, and indigenous people associations. They have all participated in the creation of the National Plan, and it would be important to

include them in further actions that derive from the implementation of the Plan. The plan already includes a designation of responsibilities, and so depending on what types of activities are needed for CMS, it would be necessary to connect with the responsible entities.

8. Are there any particular projects or initiatives underway in your country with which there would be a potential for collaborations or synergies to implement the CMS?

Several NGOs have projects to monitor jaguars on the ground. A few of the names are Panthera, WCS and WWF. In Peru, certain private entities play an important role in enabling jaguar conservation, such as ISA, which has a jaguar program. But most importantly, activities would need to be coordinated with the National Plan.

9. What is your perspective on the other jaguar initiatives related to CITES and the Jaguar Roadmap 2030 and their adoption and implementation in your country? What would be the best way to align and coordinate jaguar conservation processes within CITES or the Jaguar 2030 Roadmap in your country? And regionally?

Peru has endorsed the roadmap and considers that all regional efforts should be aligned as much as possible. More regional cooperation is particularly needed with regards to jaguar trafficking, and efforts should focus on the exchange of information. The National Plan already stipulated the need to coordinated between CMS, CITES and the Roadmap.

10. Do you have ideas about potential sources of financing for the implementation of conservation agreements and projects in your country within the context of the CMS implementation?

Several mining companies support jaguar conservation as part of their compensation schemes. This could be a potential strategy for fundraising moving forward, in engaging more effectively with the private sectors. The Ministry of Environment also has some experience accessing GEF funds. Additionally, Peru has the "Project of Public Investment" which is a national fund that received applications from ministries to fund specific projects. Projects must include an element of social development, but they can also provide benefits for species conservation. These are large funds, but the application process is long and tedious. It can take more than 4 years, especially nowadays with covid related financial stresses. The National Jaguar Conservation Action Plan has already included this as important potential funding source and will apply to the fund in due time.

11. What would be your preferred type of funding mechanism, a large project specific grant, a trustfund, and who should manage the funds?

The government prefers for funds to be managed externally, and already has experience working with several NGOs as executing partners, such as WCS. The relationship has worked well, but the challenge is the large overheads that come with certain NGOs. In the past they have also work the The Americas Fund as an executing partner, as well as the Peruvian Society of Environmental Law (for issues related to environmental laws). The Americas fund initially supported them from the Andean Flamingos project with CMS, but the funds were later transferred to a new and specific account owned by the government. This account has worked well in delivering funds for flamingo monitoring, and it was quite easy and effective. There could be a potential to do something similar for jaguar related funds, although Doris is not sure whether this was an exception or something that could be replicated.