CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA

Eighteenth meeting of the Conference of the Parties
Colombo (Sri Lanka), 23 May – 3 June 2019

CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

A. Proposal

Transfer of the vicuña (*Vicugna vicugna*) population in the Province of Salta from Appendix I to Appendix II with Annotation 1, in accordance with the criteria set out in Resolution Conf. 9.24.

B. Proponent

Argentine Republic*:

C. Supporting statement

1. Taxonomy

1.1 Class: Mammalia

1.2 Order: Artiodactyla

1.3 Family: Camelidae

1.4 Genus, species or subspecies, including author and year: *Vicugna vicugna* (Molina, 1782)

1.5 Scientific synonyms: not applicable

1.6 Common names: English: vicuna
French: vigogne
Spanish: vicuña

1.7 Code numbers: CITES A.119.004.002.002

2. Overview

The conservation of ecosystems that contain large vicuña populations in the Province of Salta, Argentina, include the permanence of the indigenous communities, who have been involved in its recovery and have shown great respect for this species and biodiversity in general in their sociocultural practices. The use of the species appears to be linked exclusively to indigenous communities that have traditionally occupied this area and have displayed productive strategies with low environmental impact. Thus, it is proposed that the natural ecosystem should be maintained, avoiding any reduction in its size or its fragmentation by the introduction of external economic ventures with high environmental impact, which represent unsustainable economic development.

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The local management of the vicuña is a model of potential use, which can integrate the conservation of this species and its habitat with local development. The vicuña is a key species in the Puna and High Andean environment due to its biological and cultural values and because it provides one of the finest fibres in the world (Arzamendia *et al.*, 2012). In Salta, the vicuña populations constitute an economic resource for local populations, and can improve their quality of life through the implementation of usage plans based on the collection of fibre through the live shearing of vicuñas. Vicuña conservation and management plans have been developed by local communities in the provinces of Jujuy and Catamarca, supported by communities in Salta.

To that effect, the situation in Argentina is special due to the split listing of the country's populations in Appendices I and II of CITES. Whilst it is well known that in general this is not advisable, these were decisions that guaranteed the proper administration of the resource. At present, it is considered that the change of Appendix in the Province of Salta would allow more orderly public polices to be implemented in the northern region of its national distribution range (Jujuy, Catamarca and Salta), and permit guidelines and bases to be established for a joint management and conservation programme for the species by the abovementioned provinces.

In this regard, the National Plan for the Conservation and Management of the Vicuña in Argentina was launched on 1 June 2018. On that occasion, the Government of Salta's official intention was presented formally, through the Secretariat for the Environment and Sustainable Development, proposing the transfer of the vicuña population in the Province of Salta from Appendix I to Appendix II of CITES. The proposal was backed by the participating provinces and national authorities, since it met the technical and administrative conditions and had political backing, allowing the first vicuña live-shearing phase to begin, in line with a management plan agreed upon at a national level.

Worthy of note are the following sections: 4.2 (Population Size), 4.4 (Population Trends), 6.2 (Legal Trade), 8.3 (Control Measures) and 8.6 (Safeguards).

3. Species characteristics

The vicuña (*Vicugna vicugna*, Molina 1782) is one of the most important resources on the plateaus of Ecuador, Peru, Bolivia, northern Chile and northwest Argentina.

These camelids are described as grazing animals with low environmental impact (Baied and Wheeler, 1993), since the structure, the shape of their lips and their teeth allow them to be highly selective with regard to the plants they consume. They can cut grasses with their teeth, rather than uprooting them, thereby allowing the plants to regrow quickly. This, in addition to the digitigrade structure of their feet with their soft pads, mean they have a low impact on the soil and vegetation. Moreover, camelids have other physiological and behavioural adaptations that include the development of a digestive system that optimises the processing of low-quality food. They are skilled at selecting feeding sites and their diet, which allows them to colonise, adapt to and prosper in desert environments characterised by a dry, cold climate and a supply of very poor quality food (Hofmann *et al.*, 1983; Benítez *et al*., 2006; in: Arzamendia *et al*., 2012), where cattle rearing is not very profitable.

3.1 Distribution

At present, the vicuña (*Vicugna vicugna*) inhabits virtually the entire Andes mountain range in Argentina, Bolivia, Chile and Peru, covering a surface area of around 250,000 km². Its range encompasses around 3,000 km, from 9º 10' S in the Department of Ancash in Peru, to 29° 31' S in the Province of San Juan, Argentina, and the III Region (Atacama) in Chile. Its altitudinal limit tends to drop to around 3,000 m above sea level in the southern part of its range. In Argentina the species is found between 21° 47' S in the Province of Jujuy, and also inhabits the provinces of Salta, Catamarca and La Rioja, from 3,200 m above sea level to 4,900 m above sea level (Baigún *et al.*, 2008). An isolated population of 7,000 individuals, resulting from donations from Bolivia, Chile and Peru in the 1990s, has also become established in Ecuador, near the Chimborazo Volcano (Laker *et al*., 2006).

The vicuña's current range is limited to the Puna and High Andean eco-region north and south of the tropics; it includes the Chilean-Argentinian-Bolivian-Peruvian plateau, reaching heights of over 3,000 m. In the Province of Salta it is estimated that its range extends over 35,005 km^2 and includes nine departments with varying degrees of human occupation. Populations are distributed across the entire Los Andes and La Poma departments, whilst in Cachi, Cafayate, Iruya, Molinos, Rosario de Lerma, San Carlos and Santa Victoria, it is only found on their western edge, with imprecise boundaries.

Its distribution is discontinuous, fragmented, and confined to high-altitude grasslands, since this species mainly eats grasses, but also browses shrubs, and is highly dependent on water resources. In the Province of Salta, the vicuña avoids certain environments (for example lagoons and saltpans that cover 8,727 km^2), such as altitudes above the tree line and steep rocky slopes. Thus, its distribution in the Province of Salta extends across approximately 26,300 km^2), **(Figure 1).**

The "Los Andes" Provincial Nature Reserve (Province of Salta) is located in the southwest of the Province of Salta, and has a total area of 14,000 km^2. It was declared a Provincial Nature Reserve through the Decree No. 308/1980 of the Province of Salta, affecting government-owned land. This Reserve provides continuity towards the south to the Olaróz-Cauchari Reserve, in order to conserve the wildlife (in particular the vicuña), flora and soil, and to study and apply techniques for the rational development and use of these renewable resources.

Figure 1: Distribution of the vicuña for NW Argentina (source IUCN, 2018)

3.2 Habitat

In the Province of Salta, the vicuña occurs in the Puna and High Andean eco-regions, covering areas measuring 13,265 km^2 (39%) and 21,049 km^2 (61%), respectively (González and Rey, 2014).

The High Andes-Puna Region is characterised by its extreme harshness, due to its strong winds, low rainfall, frequent snowfalls, high solar radiation, very low atmospheric humidity, very marked diurnal temperature variation and the presence of the white wind (wind, sand and snow), which is also frequent in winter.

The soils are sandy, with very little organic matter (2%). It is an extremely fragile ecosystem, vulnerable to environmental changes.

The eastern limit of the vicuña's range includes a habitat with characteristics typical of the eastern Andes, although the extreme conditions mentioned above are slightly less harsh. There are vast differences in altitude with peaks over 6,000 m and valleys as low as 1,300 m above sea level. The area is made up of a series of steep mountain ranges, which in general run northeast-southeast, and deep intermontane valleys.

3.3 Biological characteristics

The vicuña is the camelid best adapted to the Puna and High Andean Plateau (Bonacic *et al*., 2001).

Based on genetic studies, it is estimated that the genera *Lama* and *Vicugna* diverged from a common ancestor approximately two to three million years ago (Wheeler, 2006). Two geographical subspecies of the vicuña have been described, the northern subspecies, *Vicugna vicugna mensalis* and the southern subspecies *Vicugna vicugna vicugna.* The two subspecies display phenotypic differences, mainly with regard to their body size, distribution and the colour of their coat. Recent phylogenetic

analyses support the differentiation of vicuña populations into two clades, confirming the separation of the subspecies (Marín, 2006). These phenotypic differences observed between the two taxa are also supported by genetic differences (Marín *et al*., 2006, Marín *et al*., 2007).

The vicuña is very well adapted to living in the Puna and High Andean ecosystem, since its fibre or wool provides excellent protection against the extreme, hostile climate of this environment. The coat is made up of two layers: an external layer made up of long, thick fibres; and an internal layer of short, fine fibres with an average fibre diameter of 12 microns, which makes it one of the finest natural fibres in the world (Hofmann *et al*., 1983). Their blood also displays particular characteristics, since it is extremely efficient at transporting oxygen and contains haemoglobin specialised in capturing oxygen at lower partial pressures. Remarkable too is the fact that the species' red blood cells are very dense, small and display an elliptical structure (Gimpel and Bonacic, 2006; in: Arzamendia *et al*., 2012).

The vicuña is polygamous. It is a gregarious, territorial animal. The vicuña's gestation period varies between 330 and 350 days (11 months) (Franklin, 1982). The female gives birth to a single calf. The calves are mainly born between the months of December and April. The female may copulate again after giving birth. The calf remains with its mother for around one year. The females nurse their calves for six months. Their social organisation is based on family groups consisting of one male, three or four females and two young (Vilá and Cassini, 1994).

3.4 Morphological characteristics

The vicuña is the smallest camelid species, does not display clear sexual dimorphism, stands between 75-90 cm at the shoulder, and weighs approximately 45 kg (Yacobaccio, 2006). Its coat is made up of fine fibres with an average fibre diameter of 12.5 microns (between 11 and 14 microns) (Carpio and Solari, 1982; in: Wheeler, 2006). This species does not display sexual dimorphism (Paucar *et al*., 1984; Yacobaccio, 2006). Two subspecies are recognised (Marín *et al*., 2006), which are mainly differentiated through variations in their size, the colour and shape of the coat, and the length of their molars (Wheeler, 2006; Marín *et al*., 2006). The vicuña that lives in Argentina, Bolivia and part of Chile belongs to the *Vicugna vicugna vicugna* subspecies (Molina 1782), and has a lighter coloured coat (its fibre is classified as LF "Light Fawn" on the market), the distribution of the whitish colouration rises up the flanks towards the dorsal part (approximately as far as the middle of its ribs) and has no chest hairs; it is taller (90 cm) and the length of the molar series is 90 mm. The northern subspecies, *Vicugna vicugna mensalis* (Tomas 1917), mainly lives in Peru, part of Bolivia and Chile. Its most notable characteristics are the dark cinnamon colour of its coat on the back and flanks of the animal (fibre classified in the international trade as "Vicuña Colour"), a white chest and the presence of long, thick white chest hair up to 20 cm long. Its shoulder height is lower (75 cm) and the length of its molar series is shorter (57 mm) (Arzamendia *et al*., 2012).

Miller (1924) found that the vicuña's incisors displayed morphological characteristics that are exceptional among ungulates; in other words, they do not form roots. They are elongated with the enamel only covering the labial surface. It has physiological and etiological adaptations such as the continuous growth of the incisors and a cleft upper lip, which, due to its shape, allows the animal to select and cut leaves without uprooting plants; in other word its grazing has a low impact on the environment.

3.5 Role of the species in its ecosystem

The vicuña is a species that occurs in high-altitude environments where it represents the herbivore with the highest biomass. The vicuña's physiological and etiological adaptations to the use of the Puna and Páramo vegetation mean that this species' grazing has a low impact compared to that of the introduced cattle. It is able to metabolise coarse grasses. The vicuña has soft foot pads, which allow the animal to avoid compacting the soil. It prefers locations with high plant cover and a predominance of grasses, as opposed to low plant cover and a predominance of shrub species. Water meadows with a wide variety of plant species and water are its favourite feeding sites. In any case, it has been observed that the species is able to adapt to more degraded areas, even if the conditions are not ideal.

The vicuña's use of food resources indicates that this camelid is a generalist herbivore with a marked preference for grasses, both when they are at their most and their least plentiful (Mosca Torres and Puig, 2010).

Likewise, the vicuña is preyed on by the puma (*Puma concolor*) (Donadío and Buskirk, 2016), and its carcasses provide food for several scavengers (Donadío and Buskirk, 2006), it controls vegetation growth, disseminates the seeds of the plants it eats, and fertilises the poor soil through its communal latrines.

4. Status and trends

4.1 Habitat trends

In the Argentine Puna, one of the main factors that cause habitat degradation is the extraction of shrub and tree species for use as fuel.

Another factor that influences the species' habitat is the boom in mining activity in the Los Andes and La Poma departments due to the abundance of minerals in these locations, unlike the case of the Santa Victoria and Iruya departments, where domestic cattle predominate, since they constitute the main economic resource in these areas. However, in recent years, despite these factors, the use and proper care of this species' habitat allow these activities to coexist without any negative impact on the vicuña's habitat.

4.2 Population size

The estimated minimum number of vicuñas in the Province of Salta in 2018 was 58,387 individuals (Ianni and Bernardos, 2018). The data used for this analysis were provided by the direct observation methodology through line transects, based on distance sampling (Buckland *et al.*, 2004). The analyses were performed through the distance package (Miller, 2017) using the R platform (T Core Team, 2018). The work carried out in this study focused on 199 transects, covering a total of 2,949.3 linear kilometres (Ianni and Bernardos, 2018).

4.3 Population structure

In the study carried out in 2013 (González and Rey, 2014), the following is worthy of note
Social Structure

Of the 165 family groups found, half (52%) were made up of 2-4 females, with the most common groups (19%) being those made up of 3 females and one male. A maximum of 15 females per group was recorded. There is a high correlation between these results and those obtained in the 2006 survey for all provinces.

The number of young per family group varied between 1 and 8. There were 1-2 calves in 69% of the groups. These values are also similar to those obtained in 2006.

4.4 Population trends

In 2006, the First National Wild Camelid Census in Argentina [Primer Censo Nacional de Camélidos Silvestres en la República Argentina (1º CNCS)] was carried out, in which the number of vicuñas was estimated at approximately 72,700, in accordance with the fixed-width transect method (Baigún *et al*., 2008). Until then, it was thought there were around 15,000 individuals in the Province of Salta. Likewise, around 180 individuals were counted in private farms in this Province.

Later, in 2013, another survey was carried out using the same methodology as the one applied in 2006 (González and Rey, 2014), whose results are detailed in **Table 1**. Moreover, the estimation criteria established in the 2006 survey were adopted.

Table 1: Number of vicuñas and sampling effort in transects in the Province of Salta in 2006 and 2013. *: Data from Baigún *et al*., 2008 and **: González and Rey, 2014.

Year	**2006***	**2013****
Minimum number counted (individuals)	2,966	2,466
Minimum abundance (individuals)	32,315	30,257

Sampling effort (km)	2,709	1,237

In general terms, it could be said that the abundance of vicuñas between these years did not vary significantly (González and Rey, 2014).

From 2013 on, the census data were analysed by a researcher doing a Master's Degree in Wildlife Management at the Faculty of Exact Physical and Natural Sciences (National University of Córdoba).

The results revealed that:

Between 2006 and 2018, the minimum abundance of vicuñas tripled in the strata that were compared, since censuses are carried out every year Likewise, between 2013 and 2018 (data analysed in this report) the minimum abundance of vicuñas almost doubled (1.93 times) **(Table 2).**

Table 2: Number of vicuñas in the Province of Salta in 2013, 2015 and 2018. **: González and Rey, 2014 and ***: Ianni and Bernardos, 2018

Year	**2013****	**2015*****	**2018*****
Minimum abundance	30,257	38,393	58,387

These results would appear to indicate an increase in the total abundance of vicuñas in the period between 2013 and 2018 (Ianni and Bernardos, 2018). This would tally with the perceptions and empirical observations of local populations, who claimed that the number of vicuñas had increased.

The success of many wildlife management monitoring programmes is based on population abundance data. One of the applications of these programmes it to provide assessments of the status of populations at potential decision-making moments in the management process, to ensure that the actions to be applied are suitable. Repeated monitoring allows inferences to be made on the variation of the abundance of the populations in space and time, as long as the methodology used to collect the data is the same. On the other hand, monitoring programmes help develop knowledge on the way in which the populations might respond to different management alternatives (González and Rey, 2014).

4.5 Geographic trends

The species' estimated distribution range in 2013 was approximately 34,778 km^2, which would correspond to 22.4% of the Province's total surface area.

Analysing the situation at a protected area level, the Los Andes Provincial Reserve is the only one in which vicuña populations occur. This 14,400-km^2 reserve protects 41% of the vicuña's distribution range. Of the 5 strata with the highest minimum abundance of vicuñas, Los Andes protects 55% of the stratum with the greatest abundance (Figures 2 and 3).

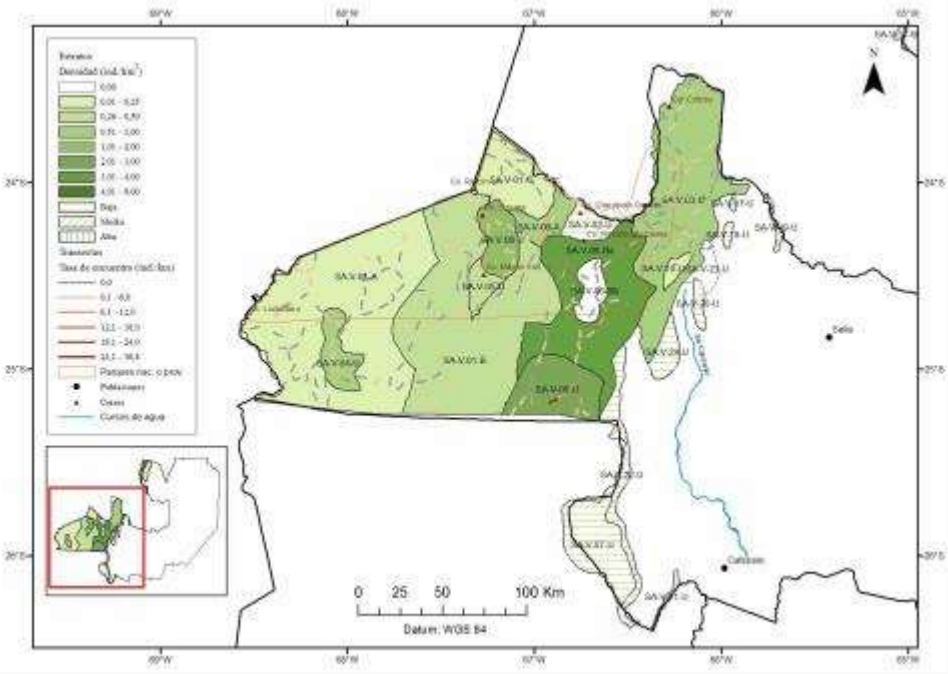

Figure 2. Distribution, minimum densities (ind./km^2) (plain green; surveyed strata) and relative densities (striped: non-surveyed strata) per stratum, transect and encounter rate (ind./km) for the vicuña. SW Salta 2013 (González and Rey, 2014).

If we analyse the distribution range by eco-regions, the vicuña occurs in the Puna and High Andean eco-regions, with the area of the former being slightly larger (Figures 4 and 5).

As for the altitudinal distribution, an altitudinal range of 1,276 m was observed, between 3,431 and 4,707 m above sea level. This range was similar (although smaller) to the one obtained in 2006, which was between 3,420 and 4,857 m above sea level.

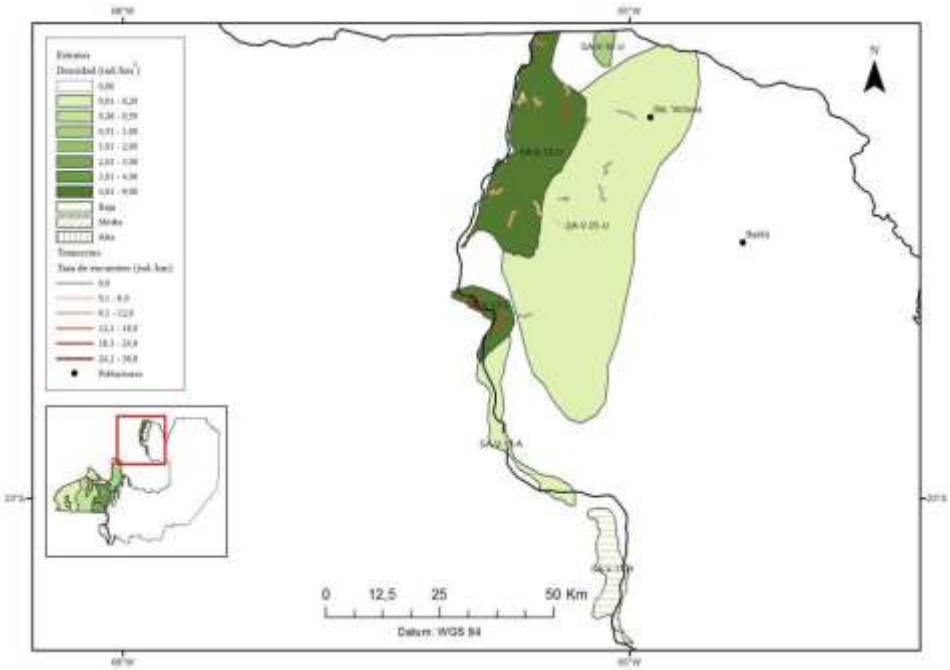

Figure 3. Distribution, minimum densities (ind./km^2) (plain green; surveyed strata) and relative densities (striped: non-surveyed strata) per stratum, transect and encounter rate (ind./km) for the vicuña. NE Salta 2013 (González and Rey, 2014).

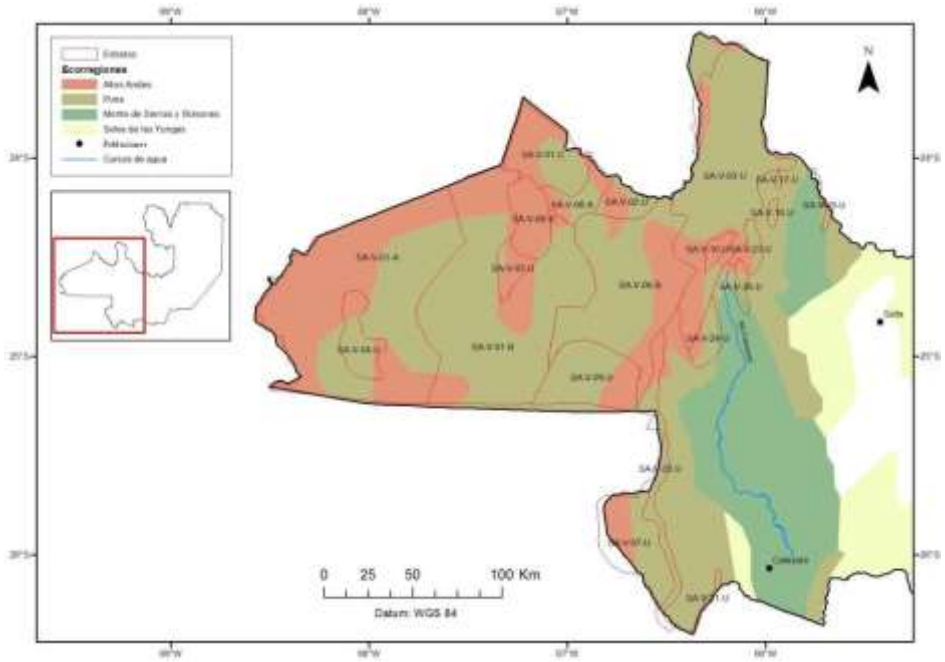

Figure 4. Distribution of vicuñas by eco-regions, SW Salta, 2013 (González and Rey, 2014).

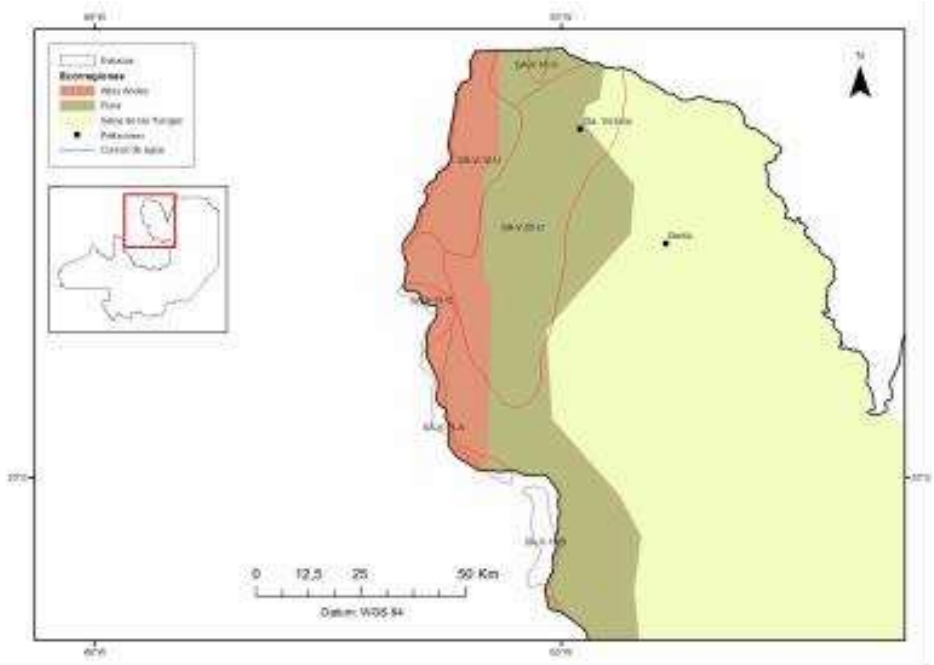

Figure 5. Distribution of vicuñas by eco-regions, NE Salta, 2013 (González and Rey, 2014).

5. Threats

Three-and-a-half decades after the signing of the Convention for the Conservation and Management of the Vicuña, poaching continues to be the main threat facing this species. This statement is based on the official reports presented to the Convention for the Conservation and Management of the Vicuña (IUCN SSC GECS, 2015).

On the one hand, the small number of patrols limits the possibility of identifying any evidence of hunting. On the other hand, many hunting events go unreported by peasants for fear of threats or reprisals by poachers. Moreover, the distances from locations where the hunting take place from towns with police presence are large, police forces tend not to act, and those who report any poaching fear becoming suspects themselves (IUCN SSC GECS, 2015).

Other influencing factors in the Province include mining and, to a lesser extent, the introduction of exotic species for cattle rearing.

Tourist activity in the area brings about changes in the species' natural environment, due to increased human presence.

A trend towards the degradation and fragmentation of Puna and High Andean wetlands has been observed. However, the pressures and the degradation and fragmentation processes are far higher in the Puna altitudinal belt than in the High Andean, because the conditions in the former are more favourable for human activities. Indeed, in the Puna wetlands, the reduction in biodiversity is caused both by the decrease in the availability of water and extractive activities.

The environments most badly affected are water meadows and Andean wetlands [bofedales], due to the extraction of water for mining, to pressure from grazing, to unsustainable local practices such as unregulated tourist activities and activities that affect the quality of the water.

6. Utilisation and trade

6.1 National utilisation

Argentina has approximately 127,072 vicuñas (estimated by distance transects) (Baigún et al., 2008). The Jujuy populations represents 55.4% of the total, the Salta population represents 23.2%, and 21.4% corresponds to the rest of the provinces inhabited by the vicuña (Catamarca, San Juan and La Rioja). To date, the only provinces where the economic use of the wild vicuña populations is possible are Jujuy and Catamarca, due to the fact that they were included in Appendix II of CITES in 1997 and 2002, respectively. The vicuñas that inhabit the remaining vicuña provinces are included in Appendix I of CITES, which bans their use for commercial purposes.

In Jujuy, several pilot management experiments were carried out. The first started in the 1960s, based on the captive breeding of vicuñas in a State experimental field (now the Agricultural Experimental Station of the National Agricultural Technology Institute [Estación Experimental Agropecuaria del Instituto Nacional de Tecnología Agropecuaria – INTA]), which then led to the creation of many private farms run by individual producers, and these individuals were also included in Appendix II of CITES. In the Province of Salta, vicuña shearing is carried out on two authorised farms (their individuals are included in Appendix II), involving animals originating from INTA livestock establishments. Their fibre is commercialised in its raw form, without being turned into products.

The hunting of this species is banned across the entire country. At present fibre has been recorded from the shearing of wild vicuñas in the provinces of Jujuy and Catamarca as well as well as from captive animals on vicuña farms in Jujuy and Salta. It should be noted that for the Province of Salta the main sustainable option is the use of wild vicuñas, so it is essential to highlight the activities that are being carried out successfully in the provinces of Jujuy and Catamarca.

6.2 Legal trade

The transfer of wild vicuña populations in the Province of Salta from Appendix I to Appendix II could greatly increase the stock of fibre available for trade in Argentina. This would have two uses: export and internal trade within Argentina, mainly aimed at the production of clothes by artisans, with a huge potential market.

6.3 Parts and derivatives in trade

The products that are exported from member countries of the Vicuña Convention are: dehaired wool, pre-dehaired wool, wool, chest fibre (‘garra’ also known as ‘braga’ in Bolivia); pre-dehaired fibre, washed fibre, dirty fibre, yarn, clothing, fabrics, utilitarian crafts in the case of Peru, wool fibre and chest (‘garra’) fibre in the case of Chile; and de-haired wool, de-haired chest/belly fibre and artisan clothing in Argentina.

The following countries trade in vicuña products: Germany, Australia, China, Scotland, the United States, England and Italy.

6.4 Illegal trade

Vicuña hunting (a practice that has been carried out for many years) put the species at risk of extinction, not only in Argentina but also in the other countries where it occurs. For this reason, in Argentina, fundamentally since the 1970s, measures began to be taken such as the creation of protected areas in the Puna environment, in order to protect the vicuña populations. Simultaneously, effective work to raise public awareness in the Argentinian provinces was carried out in order to ensure better control of hunting.

It is important to note that in Argentina, control and monitoring tasks are not only carried out by the authorities responsible for wildlife, but also by the security agencies, such as the Provincial Police and in particular the National Gendarmerie, an institution that has addressed environmental issues as one of its main activities, conducting important proceedings against poachers and illegal traders in vicuña skins.

Table 3 sums up the seizures made by the National Gendarmerie between 2003 and 2018.

6.5 Actual or potential trade impacts

In order to ensure valid planning, the latter must be the result of a collective construction process, which includes the participation of the stakeholders who are involved in the topic to be addressed by this plan, at all times taking into account the fact that the main objective is the conservation of the species.

This is based on a State management that promotes areas of participation that contribute to the consensus and guides management proposals towards sustainability, with a precautionary criterion. Therefore, it must be governed and established politically and executively by the ethical assessment of biodiversity conservation. In order to ensure this assessment is carried out, it is essential that what constitutes a wild species, the evolutionary, ecological and anthropic processes that affect it, and the legislation that applies, are all internalised (Arzamendia et al., 2012).

Table 3. Seizures made by the National Gendarmerie from 2003-2018 in the Province of Salta. *: no data on individuals

Year	Number of Vicuñas
2016	1
2015	3
2012	3 locations*
2009	1
2006	24
2005	123
2004	13
2003	452

It is necessary to design and agree on the bases for planning management in the Province, taking as goals the conservation and recovery of wild populations of this species and its habitats, and the ecologically and socially sustainable development for rural inhabitants of the Puna, which will benefit a human population that currently suffers severe economic constraints, a situation that in many cases leads to people leaving the Puna area due to lack of employment and income that can guarantee basic survival. The use of vicuña fibre, through the shearing of live animals, is one option for improving the Andean inhabitants' income and providing a sustainable means that ensures the survival of this species.

7. Legal instruments

Currently, in Argentina, the legal framework for the vicuña (*Vicugna vicugna*), consists of international, national and provincial regulations. Due to the adoption of the federal government system, Argentina has two main levels of wildlife regulations, provincial and national.

There are various international, national and provincial conventions and laws, which protect the vicuña and regulate the trade in live animals as well as all the products and by-products obtained from this species. The most relevant legal instruments are listed below:

7.1 National

National Constitution. In accordance with Section 124 of the National Constitution (amended in 1994), the provinces have the original dominion over the natural resources existing in their territory. In accordance with Section 41 of the National Constitution, the Nation shall regulate the minimum protection standards, and the provinces those necessary to reinforce them. The National Constitution in Section 75 subsections 17 and 22 empowers Congress to recognise the rights of indigenous people to use resources in accordance with their traditional practices.

The National Wildlife Conservation Law [Ley Nacional para la Conservación de la Fauna Silvestre] No. 22.421, its Regulatory Decree No. 666/97. This Law establishes that Argentina regulates the interprovincial trafficking and export of animal products, moreover exercising international representation.

National Code of Civil and Commercial Procedure [Código Civil y Comercial de la Nación]. Law No. 26.994. In accordance with Article 1947, para. ii), the vicuña shall not be subject to appropriation since the hunting of this species is banned by Resolution No. 635/05 of the Secretariat of the Environment and Sustainable Development, also by Law No. 6709/93 of the Province of Salta.

The provinces in this species' distribution range have their own legislation regarding wildlife in general and the activities related to its management.

The following laws apply in the Province of Salta:

Law No. 6.709/93 of the Province of Salta [Ley de la Provincia de Salta N° 6.709/93]. Prohibits the hunting and possession of the vicuña and the commercialisation and industrialisation of its products and by-products. Establishes that the Enforcement Authority *"should carry out censuses or surveys in order to determine the natural habitat of the species in the Province…".* Also establishes that "*all the proceeds from the fines and sales of the seized items will go to the Enforcement Authority, with automatic availability for the execution of the measures provided for by this Law".*

Cooperation Agreement between the General Directorate of Renewable Natural Resources, the current Secretariat for the Environment and Sustainable Development, and the "Salta" VII Grouping [Agrupacíon VII "Salta"] of the National Gendarmerie It was signed in Salta in October 1990 and was approved by Decree No. 788/91. In accordance with the legal framework and based on this agreement, the National Gendarmerie carries out regular controls in the areas with vicuña populations, which has allowed them to seize skins derived from poaching.

Law No. 7.070/99 of the Province of Salta regarding the Environment and Law No. 5.513/79 on Wildlife Conservation. They establish the Provincial Police's obligation to act. However, because (broadly speaking) the border area overlaps with the vicuña's distribution range, the National Gendarmerie plays a more prominent role with regard to the control of areas containing vicuña populations.

7.2 International

Convention for the Conservation and Management of the Vicuña. Signed in the first place by Bolivia and Peru in 1969, and later signed by Argentina in 1971, Chile in 1972 and Ecuador in 1979. The conservation measures implemented include the creation of numerous protected natural areas in all the countries where the species occurs, the development of joint strategies by all the signatory countries in order to control poaching and ban the export of fertile animals or other breeding material, a key point to avoid the breeding of this species for commercial purposes outside of its distribution range. The Convention's protectionist measures and its prohibition of the commercialisation of fibres, hair, skins and products made from these items were reinforced by the application of the ban on the international trade in the fibre by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). After a successful first stage of absolute protection, which involved the local communities and, faced with the recovery of some of its populations, in 1979, within the framework of the Convention, all the countries agreed to promote the economic use of the species "for the benefit of

the Andean people" (Convention for the Conservation and Management of the Vicuña, 1979; National Law No. 23.582/88 in which the Convention was approved by Argentina). In accordance with Article I "the Signatory Governments agree that the conservation of the vicuña provides an economic production alternative for the benefit of the Andean population and commit themselves to its gradual use under strict State control". The article is of utmost importance since it recognises that the first and main (if not only) beneficiaries for the use are the inhabitants that coexist with the vicuñas, and that "they will accept" the cost of the vicuña's conservation, and moreover it facilitates the sustainable use of the species.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Argentina signed the treaty in 1982, through Law No. 22.344. The vicuña was listed as an Appendix II species in 1997 and 2002 for the wild populations in the provinces of Jujuy and Catamarca, respectively, and for the populations derived from the INTA farm in Jujuy, which are kept in captivity in the other provinces that contain this resource.

8. Species management

8.1 Management measures

At a national level, the activities related to the species differ consistently in each province, since the existing regulations differ.

In the Province of Salta, the only activities to date related to the live shearing of vicuñas are carried out on two farms. The fibre obtained from these farms is commercialised by the owners of the latter.

The management of a wild species involves a large number of aspects including biological, environmental and socioeconomic issues. The profile of the legitimate beneficiary also conditions the type of use, since this involves communities that maintain a productive system with subsistence and self-consumption characteristics. Thus, family producers belonging to indigenous communities in the departments of Los Andes, La Poma, Rosario de Lerma, Santa Victoria and Iruya started an organisational process to draw up local conservation plans (LCP), in territories with community-based land tenure. The technical support in this process is provided by an interdisciplinary and interagency team made up of national and provincial bodies: the Undersecretariat for Family Farming, the Secretariat for the Environment and Sustainable Development of Salta, and the National Agricultural Technology Institute. The working methodology for the development of the LCP by the indigenous communities include intracommunity and extracommunity agreements in the decision-making, capacity building and training in the use of tools for the conservation of the species, participatory workshops and the exchange of knowledge, to ensure that the use of the resource is sustainable in all aspects (ecological, social and economic).

8.2 Population monitoring

For Argentina, the transfer of the abovementioned Argentine vicuña populations from Appendix I to Appendix II of CITES involves an increase in the international requirements regarding the management of this resource, and regarding the responsibility undertaken to carry out proper monitoring of the population status and trends, and of the management systems to which they are subjected.

In the Province of Salta, one of the most urgent obligations consisted of carrying out surveys in order to determine the status of the vicuña population.

The last survey at a national level was conducted in 2006.

In the Province, the activities related to the species have been intensifying since 2012. Surveys were carried out in 2013 (together with the Province of Jujuy and the then Argentine Wildlife Directorate), 2014, 2015 and 2018. This allowed us to identify the status of the populations, their social organisation, the status of the species' habitat, and interact with the communities that participated actively in the surveys with their knowledge of this area.

In parallel with this, workshops have been carried out with the communities in the species' entire distribution range, through the creation of maps, which allow for the establishment of key points with regard to water bodies, resting areas, shelters, grazing areas, as well as sites containing possible

threats, and the development of local conservation plans for the vicuña, with the communities' commitment to look after this species.

The everyday presence of technicians and professionals from State institutions in this area (Undersecretariat for Family Farming, INTA, municipal governments) allow for the monitoring of and support for these local conservation plans. This articulation of stakeholders also allowed the communities from Salta to be integrated, with active participation in organisational processes and the building of local capacities, into the framework of community management plans in the Province of Jujuy.

8.3 Control measures

It is proposed that, by changing the Appendix, through joint policies with the other border countries, provinces and institutions concerned, control measures will be more effective, since Salta is in the same situation as the neighbouring provinces of Jujuy and Catamarca, which will make it easier to detect any products derived from poaching and illegal trade.

Controls will be reinforced with regard to staff, vehicles, communication, operations to check products and by-products, traceability control from the origin to the sale to private individuals, the presence of the enforcement authority responsible for the implementation of shearing operations and processing the fibre. Forms will be created for the confirmation of each of the processes by appropriately trained civil servants, with the checking of the attachment of labels with the designations VICUÑA ARGENTINA and VICUÑA-ARGENTINA-ARTESANÍA to clothes, in accordance with the CITES regulations.

8.3.1 International

The Convention for the Conservation and Management of the Vicuña, which has governed the countries in the species' distribution range since 1979, constitutes a legal and technical tool for decision-making on the sustainable use of the vicuña, covering its entire distribution range, ensuring the conservation of all its populations.

Moreover, controls in international airports will be stepped up through concerted actions with the Airport Security Police, which reports to the Ministry of Security, simultaneously implementing a public information and awareness campaign.

The measures agreed on within the framework of the Vicuña Convention, plus those already approved by CITES, such as for example the adoption of the VICUÑA PAÍS DE ORIGEN brand to identify fabrics and garments containing fibre from vicuñas listed in Appendix II,

8.3.2 Domestic

The Secretariat for the Environment and Sustainable Development, which reports to the Ministry of Production, Labour and Sustainable Development of the Province of Salta, through the Biodiversity Programme, organising activities in conjunction with the Undersecretariat for Family Farming and INTA, both institutions with a constant presence in the area, allows for joint actions with the communities to be carried out, since these are the institutions that support and collaborate with the activities aimed at monitoring and implementing the existing regulations.

In our country, the security force that acts in border zones is the National Gendarmerie. One of the objectives of this institution concerns the environment and natural resources, and it collaborates with provincial and national authorities in controlling poaching and the illegal wildlife trade. This security force has signed conventions with the National Authority responsible for natural resources, with the bodies in charge of natural resources in all the provinces where the vicuña occurs and with most of the provinces of Argentina.

The Airport Police is in permanent contact with the Secretariat for the Environment and Sustainable Development of Salta, since it carries out all air cargo inspections of the transit of wild fauna and flora and their corresponding products and by-products

Special divisions of the Provincial Police such as the Rural, Environmental and Cultural Heritage Police Division (DPRA) also participate and collaborate in the controls and inspections.

At provincial level in the Los Andes Department, within the “Integral Plan for the Management and Development of the Los Andes Wildlife Nature Reserve, the Socompa Lagoon Provincial Wildlife Refuge, and the Ojos de Mar Provincial Wildlife Refuge in Tolar Grande” [“Plan Integral de Manejo de Desarrollo de la Reserva Natural de Fauna Silvestre Los Andes, Refugio Provincial de Vida Silvestre Laguna Socompa y Refugio Provincial de Vida Silvestre Ojos de Mar de Tolar Grande”], the focus is placed on the conservation of certain elements of the natural and cultural heritage subject to different types of pressure. These elements were analysed, in addition to the sources of these pressures, and measures were taken in the Plan for their conservation. In this respect, in the case of the species in question, the projects in the Plan aim to improve the control systems to avoid hunting, and also to guarantee the species’ grazing areas and to implement land-use planning, etc.

Moreover, it is considered that the main aim of the activities designed to ensure the compliance with and implementation of the existing regulations (which have been carried out since 2012 with the communities across the species' entire distribution range) is the conservation of the species. This makes these communities the principal stakeholders in the care for and control of the land, guaranteeing an activity that will permit the sustainable use of the species.

The health of the vicuña population and the long-term survival of the species depend on natural processes that occur in the environments they inhabit. (Arzamendia *et al*., 2012). Therefore, the welfare of the vicuña is another point to bear in mind, and it will be ensured following the criteria presented at the 29th Ordinary Meeting of the Convention for the Conservation and Management of the Vicuña, (Resol. 344/12) It adopted the “Animal Welfare Protocol” document as input material for the drawing up of technical criteria and guidelines on Animal Welfare, with the adjustments that the national experts recommend in line with local realities.

8.4 Captive breeding and artificial propagation

In the Province of Salta, individuals from the EEA INTA Abra Pampa farm were used to create other farms in the Department of Molinos, in Santa Rosa de los Pastos Grandes in the Department of Los Andes, and in Viscachani in the Department of Santa Victoria. The farms in the departments of Molinos and Los Andes are now operational.

The Agua Dulce farm in the Los Andes Department, belonging to Fausto Santos Morales, was authorised by Provision No. 011/99 of the Province of Salta. It currently has a total of 73 (seventy-three) individuals.

The Coquena farm, located in the Department of Molinos, belonging to the San Pedro Nolasco de los Molinos Association of Artisans and Producers [Asociación de Artesanos y Productores San Pedro Nolasco de los Molinos], was authorised by Provision No. 226/93 of the Province of Salta. It currently has a total of 7 (seven) individuals.

On the other hand, companies specialised in the artificial breeding of vicuñas are not authorised in Argentina.

8.5 Habitat conservation

The Los Andes Wildlife Nature Reserve [Reserva Natural de fauna Silvestre Los Andes] was created through Decree No. 308/80 of the Province of Salta, regarding the Convention for the Conservation and Management of the Vicuña, in which the signatory governments undertake to establish and maintain vicuña reserves and breeding centres. It is located in the Los Andes Department and its boundaries are North: with the Province of Jujuy and the La Poma Department; East: with La Poma; South: parallel 24º 45’ S; and West: with the Republic of Chile. The Reserve has a surface area of 14,400 km^2.

Law N° 6.709/93 of the Province of Salta bans hunting and the tenure of the vicuña, and the commercialisation and industrialisation of its products and by-products. Likewise, in its Article 3º, it declares that the departments of Cachi, Molinos, San Carlos, La Poma, Los Andes, Rosario de Lerma, Iruya, Santa Victoria and Cafayate constitute a reserve area.

In this respect, the enforcement authority is authorised to create nature reserves, new reserve areas, breeding in semi-captivity and to develop conventions for this purpose.

Resolution No. 428/16 of the Secretariat for the Environment of the Province of Salta approved the Integral Plan for the Management and Development of the Los Andes Wildlife Nature Reserve, the Socompa Lagoon Provincial Wildlife Refuge, and the Ojos de Mar Provincial Wildlife Refuge in Tolar Grande.

Tool for planning the management of each of the protected areas:

Within and outside of the protected areas of the Province, conservation plans for the species and its habitat are being created, developed by the communities with the support of the Secretariat for the Environment and Sustainable Development of the Province of Salta, INTA, and the Undersecretariat of Family Farming and Municipalities.

8.6 Safeguards

The transfer from Appendix I to Appendix II of CITES of the vicuña populations in the Province of Salta, which are considered of great socioeconomic importance for the indigenous communities, by generating the possibility to improve their quality of life, will allow for the implementation of plans for the use of the species, based on the collection of fibre from the live shearing of wild vicuñas.

In this respect, the Convention for the Conservation and Management of the Vicuña, in its Article I, establishes that "The signatory governments agree that the conservation of the vicuña provides an economic production alternative for the benefit of the Andean population and commit themselves to its gradual use under strict State control, applying such technical methods for the management of wildlife as the competent official authorities may determine".

In accordance with the provisions set out in the Convention, the Province of Salta undertakes to step up conservation actions for this species. Carrying out capacity building and live shearing training, in some areas of the species' distribution range within the province, being selected as pilot tests those that will serve as experience for capture and shearing on a larger scale in the near future, when this is considered viable.

However, this change in provincial status will be accompanied by regulations in line with national and international guidelines on the management of the species, and will also allow all the communities to have access to training, funding and other benefits allocated to this purpose.

9. Information on similar species

The only wild species that is similar to the vicuña is the guanaco (*Lama guanicoe*). However, they are easy to tell apart due to the differences in their size and colour. The fibre obtained from these two species and the by-products made with the fibre can be confused. Therefore, the traceability of the products requires the appropriate inspections during the processing period, from the collection of the fibre until the finished product.

10. Consultations

Background to the presentation of the proposal

2nd International Meeting of Andean Vicuña Managing Communities [II Encuentro Internacional de Comunidades Andinas Manejadoras de Vicuñas], 19-21 December 2017, Yavi, Jujuy, Argentina. Representatives of communities in the Province of Salta, which live in the species' distribution range requested the support of the communities that manage the vicuña for the proposed amendment to the CITES listing. This request was granted and appears in the Final Minutes of the Meeting.

Workshop on the National Plan for the Conservation and Management of the Vicuña in Argentina (PNCMV), held on 1 June 2018 in the city of Salta. On this occasion, the Province of Salta, through the Secretariat for the Environment and Sustainable Development, revealed its intention to present the proposed amendment to Appendices I and II regarding the vicuña populations, with the support of environmental organisations in the other Argentinian provinces that contain vicuña populations.

The Province of Salta is participating with the PNCMV's proposal, which will favour joint actions ranging from the creation and planning of the latter to its implementation.

The proposal for the amendment of the Appendices was presented to researchers from the National Research Council (CONICET) and the NGO Vicuñas, Camelids and Environment (VICAM), who revised and contributed to the text.

Presentation of “Proposal for the Amendment of Appendices I and II of CITES” at the 34th Ordinary Meeting of the Technical and Administrative Commission of the Vicuña Convention 2018, held in the city of San Salvador de Jujuy, Argentina, on 31 October and 1 November 2018. Resolution No. 398/18 of the Convention.

Consultation by the Pro Tempore Secretariat of the Vicuña Conventions to the Signatory Countries, in order to receive contributions for the drawing up of the final version. November 2018.

11. Additional remarks

Meetings were held with researchers from INTA, the Agricultural Experimental Station of Anguil, La Pampa and the Agricultural Experimental Station of Bariloche, Rio Negro, (Project Integrating Biodiversity and Ecosystem Services), in order to coordinate the activities linked to the analysis of data on vicuña surveys carried out in 2013, 2014, 2015 and 2018. The technical assistance of a thesis student studying for a Master's Degree in Wildlife Management in the Faculty of Exact Physical and Natural Sciences (National University of Córdoba) was proposed, in order to use the information collected in these surveys, The results allowed the Province of Salta to enrich the information gathered to date.

The participation of technicians from the Undersecretariat of Family Agriculture under the Secretariat of Agroindustry through the Programme for the Economic Insertion of Family Producers in Northern Argentina [Programa de Inserción Económica de los Productores Familiares del Norte Argentino, PROCANOR], aimed at rural families, funded by the International Fund for Agricultural Development (IFAD), and the programme managed by the Unit for Rural Change [Unidad para el Cambio Rural, UCAR], which is designed to improve the integration of small farmers within the value chain in ten provinces of the Norte Grande Region (Catamarca, Chaco, Corrientes, Jujuy, Salta, Misiones, Formosa, La Rioja, Santiago del Estero and Tucumán).

Part of the project in Salta aims to create commercial links between the supply (producers) of raw materials and/or the products and by-products from llamas and vicuñas with the demand, on equal terms, adding value to the raw materials obtained.

The aim is to obtain information, funding, technology and human capital, etc. through this support.

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