NDF WORKSHOP CASE STUDIES
WG 5 – Mammals
CASE STUDY 8
Vicugna vicugna mensalis
Country – **ECUADOR**
Original language – Spanish

CONSERVATION AND CURRENT USE OF THE VICUÑA (*VICUGNA VICUGNA MENSALIS*) IN PERU

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I. Background information on the taxa

1. BIOLOGICAL INFORMATION

1.1. Scientific and common names

Class:	Mammalia
Order:	Artyodactila
Family:	Camelidae
Genus:	Vicugna
Species:	*Vicugna vicugna*, (Molina, 1872)
Subspecies:	*Vicugna vicugna mensalis*
	Vicugna vicugna vicugna
Scientific synonyms:	None

Common names:

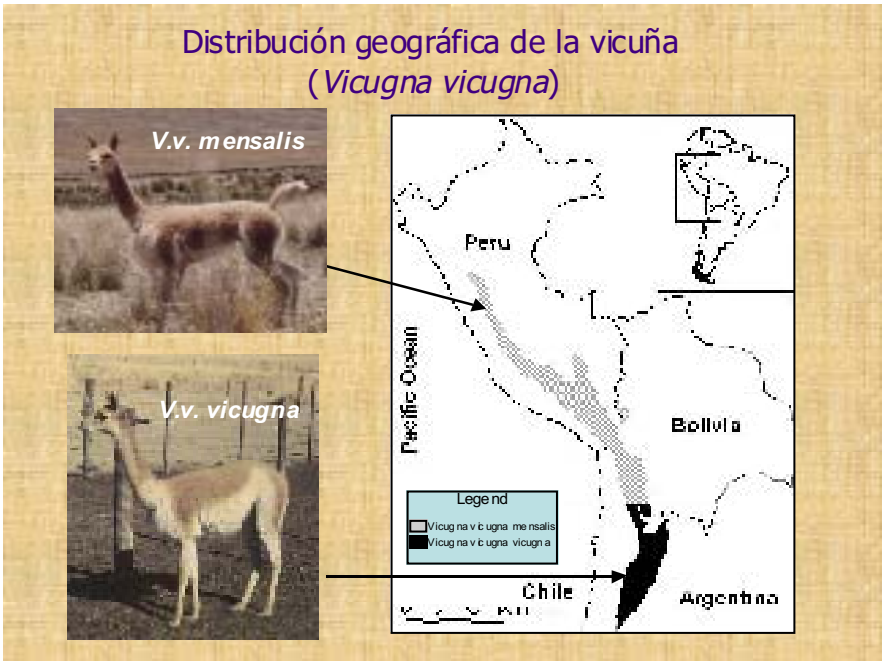
Quechua:	Vicuña
Aymara:	Huari
Spanish:	Vicuña
French:	Vigogne
English:	Vicuña, vicuna
German:	Vikunja

Code number: CITES A.119.004.002.002 (CITES Identification Manual)

Listing in CITES: Appendix II (18/09/1997)

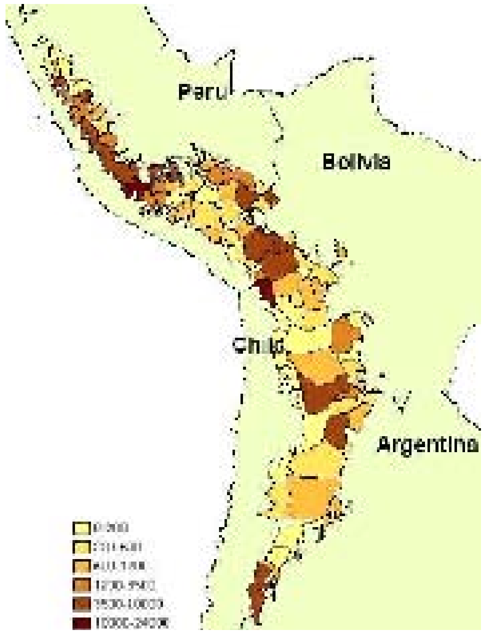
1.2 Distribution

The current natural distribution of the Vicuña comprises the Puna and high Andean ecosystems in Argentina, Bolivia, Chile and Peru. Since 1988, the species has been reintroduced in Ecuador, with specimens from the other range States. In these countries, the species occurs in the Andean Altiplano, normally at elevations higher than 3,300 m, in areas where the vegetation is formed by shrub steppes, grasses and herbs adapted to harsh climatic conditions.

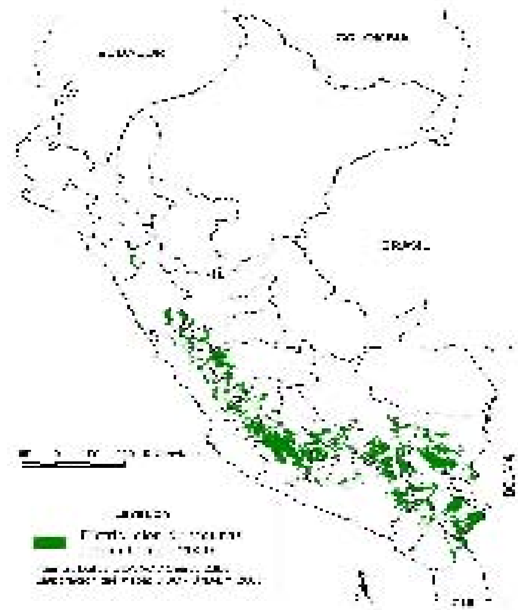


In Peru, the known populations of vicuña are distributed along the high Andes above 3,800 m in approximately 7 million hectares out of the 15 to 18 million hectares of potentially suitable habitat estimated for the country. Vicuña populations are found from 8.14' south latitude in the North until the border with Bolivia and Chile (18 00' south latitude) in the South, in 16 Departments (large administrative regions) of the country. The largest populations are found in the Departments of Ayacu¬cho, Puno and Lima.

The great majority of vicuñas recorded so far occur on land that belongs to rural communities and peasant cooperatives. There are about 8,000 of such organizations in Peru, out of which more than 700 are organized into local committees called "Comités Comunales de la Vicuña."



Distribution of the Species in South America (Laker 2007).



Distribution of the Vicuña in Peru (Veliz and Hoces 2007)

DISTRIBUCION NACIONAL DE LA POBLACION DE VICUÑAS Y DE LA PRODUCCION DE FIBRA SEGÚN CENSO Y CAMPAÑA DE PRODUCCION AÑO 2000

[illegible] Tipo de Organizacion	[illegible]	%	[illegible]	%	[illegible]	%	[illegible]	%
COMUNIDADES CAMPESINAS	734	85.28	84,818	71.55	128	84.21	1,681,858	45.56
EMPRESAS COMUNALES	22	2.61	21,625	18.14	8	5.23	1,678,038	46.06
EMPRESAS ASOCIATIVAS	8	1.07	6,680	5.55	3	1.96	200,020	5.83
PREDIO PRIVADO	80	10.44	5,666	4.75	12	7.84	87,030	2.52
TOTAL NACIONAL	848	100.00	118,875	100.00	153	100.00	3,428,278	100.00

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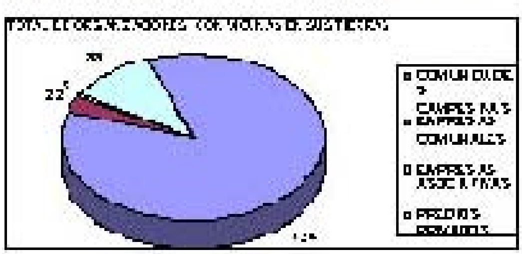
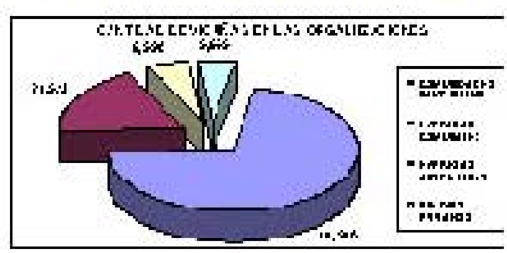
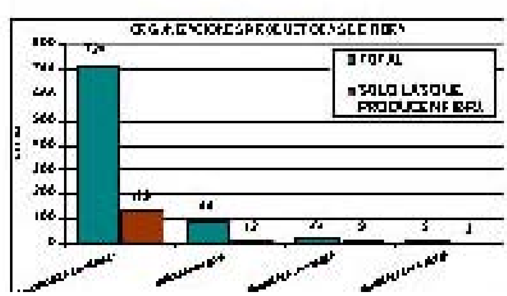
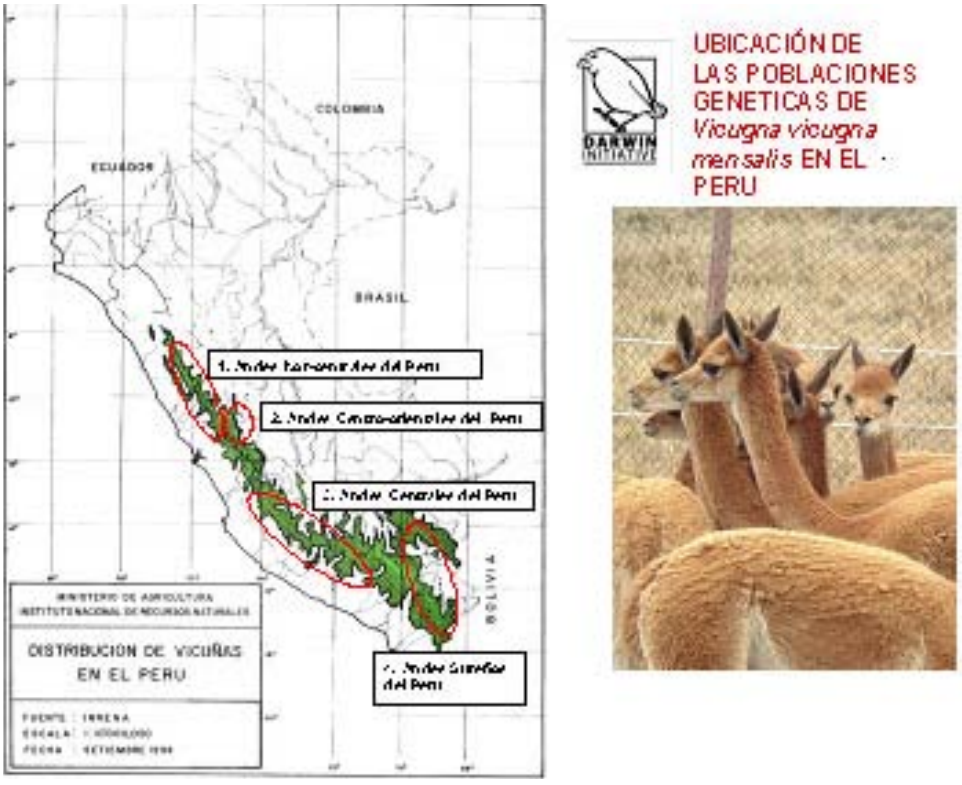






In 2001, four demographically and genetically distinct groups were identified among the vicuñas in Peru: northwestern Junín, southern Junín, central Andes and Puno. Given their differences, it has been recommended that these groups be dealt with in separate management units in the future.



Translation of heading: Location of the genetic populations of *Vicugna vicugna mensalis* in Peru

1.3. Biological characteristics

1.3.1 *Biological characteristics and life history of the species*

SOCIAL ORGANIZATION

Vicuñas usually live in family groups dominated by an adult male or only-male-groups, although there are also solitary males besides these groups. The average size of the families is very stable in comparisons between populations and between both subspecies (one male, tree or four males and two or three young). The male establishes and maintains a permanent territory throughout its reproductive life. The territory usually has a sleeping area in the highest sector, feeding grounds lower down, and a source of water. The boundaries of the territory are

delimited by dung heaps, which help orient the members of the family group and are used by the dominant males to threaten vicuñas that do not belong to their group. The territory boundaries are reinforced by the "ritual" defecation of these males. The dominant males control the size of the family group, defending their territory against any vicuñas not belonging to the group, and expelling their own male and female offspring when they reach 4-9 months and 10-11 months of age respectively before parturition starts in February. Expelled males form non-territorial groups made up of 20-60 animals on average, and females join other family groups. Some males eventually separate from these groups and live alone until they establish their own territory.

Reproduction

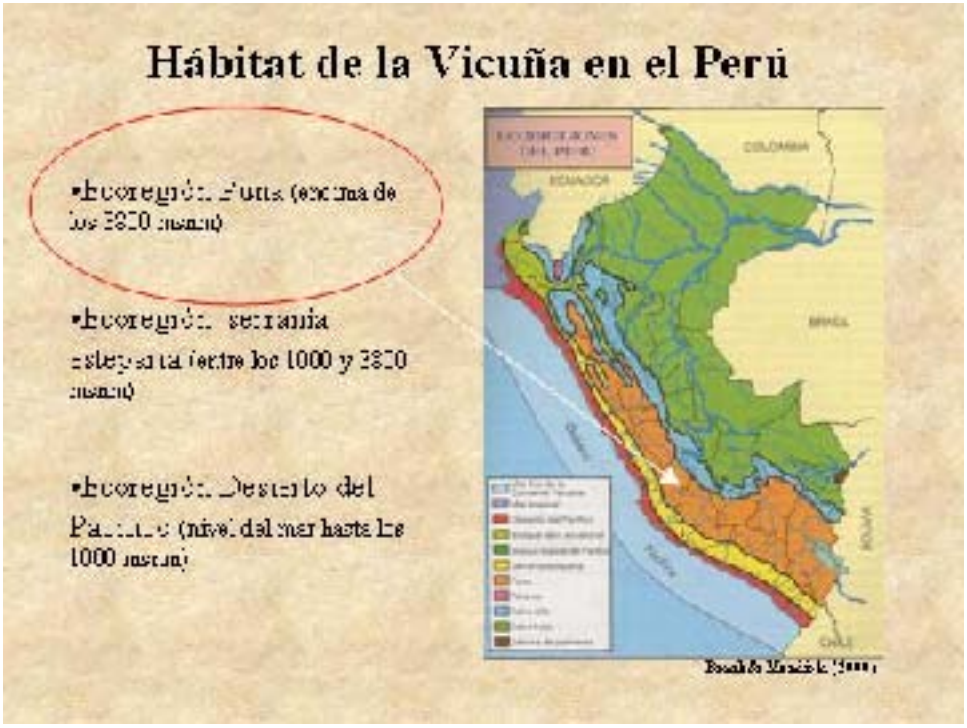
Gestation of the vicuña lasts 330 to 350 days. In Peru, parturition starts in the second half of February and finishes in the first week of April, reaching a peak in March. In southern populations, however, most births take place in February. Parturition always takes place in the morning. At birth, the young weigh 4-6 kg, about 15% of their mother's live weight. Mating takes place a few weeks after parturition. Some vicuñas are ready for mating at one year, but most reach reproductive maturity at two years and produce their first offspring at the age of three. In Pampa Galeras, pregnancy rates – determined on the basis of external observation in the last month of gestation – were 85% to 95% before the population crisis of 1976, and 58% after the crisis. In a vicuña population of Puno, pregnancy rates of 99% were determined by rectal palpation.

1.3.2. *Type of habitat:*

The Puna and high Andean ecological formations of Peru are distributed from the Department of La Liber¬tad in the north (8 south latitude) to the border with Bolivia and Chile in the south (18 south latitude). Such areas feature greater humidity in the north, which is connected to the high plateau, than the south, which is drier. Elevation ranges between 3,800 and 5,000 m, with a mean temperature of 6 – 8ºC and rainfall between 400 and 700 mm.

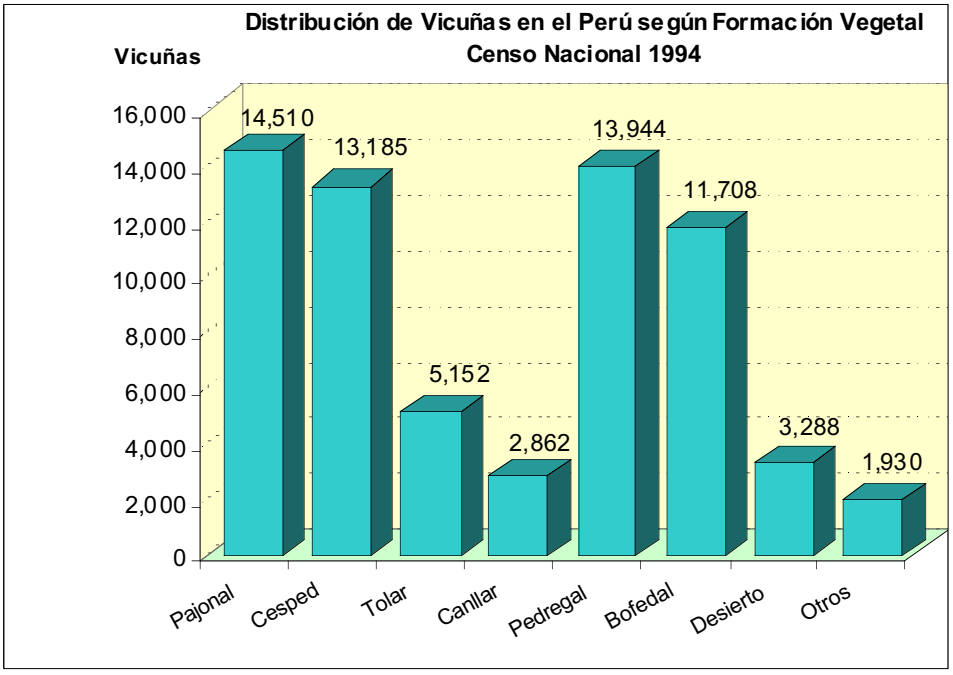
The dominant vegetation is formed by grasses, which alternate with low plants and scarce forests with plants of the genera *Polylepis, Buddleia* and *Puya*.

These habitats occupy a stretch of land which is narrow in the north and broad towards the south, with a total surface just under 18 million hectares in Peru.



Translation of text in image above: Habitat of the vicuña in Peru; Puna ecoregion (above 3,800 m); Steppe mountain ecoregion (1,000 to 3,800 m); Pacific desert ecoregion (sea level to 1,000 m);

In order to carry out surveys or population assessments, the general habitat of the species has been classified into plant formations. Some of them where vicuña groups have been recorded are considered specific habitats for the species. They are the following: *Pajonal* (scrubland), *Césped de puna* (Puna grassland), *Tolar or Canllar* (spiny shrubland), *Bofedal* (wetlands), *Pedregal or Roquedal* (rocky areas) and Desert. The 1994 vicuña survey made it possible to record vicuña populations on a national level based on these formations.



SOURCE: 1994 NATIONAL SURVEY (INRENA), Author: Domingo Hoces

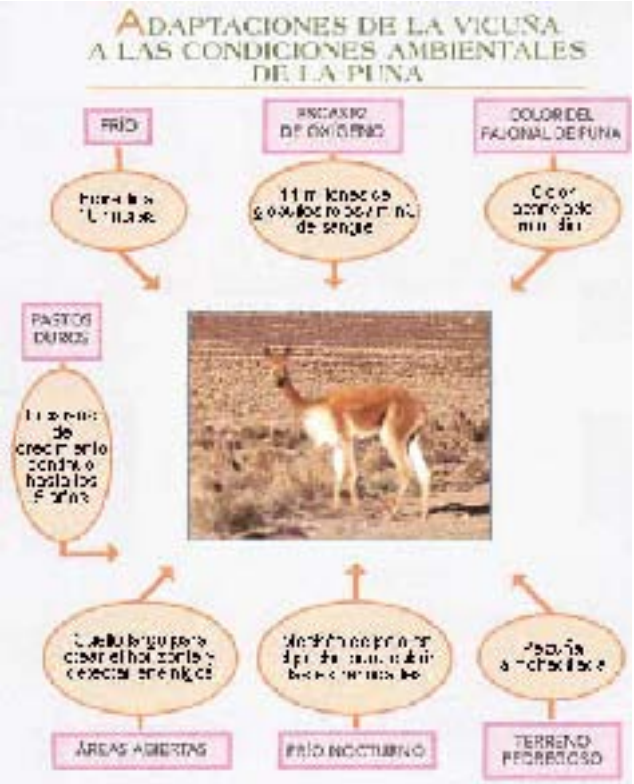
Translation of the text in the table: Distribution of vicuñas in Peru based on plant formations. 1994 National Census

1.3.3. *Role of the species in its ecosystem*

As a wild animal, the vicuña is a key species of the Puna and the high Andes because it is native, adapted to the climate of the region, and especially because of the high economic value of its fiber; the species coexists with extremely poor human populations, for whom it is an alternative way to obtain efficient production from the land, given that other traditional agricultural activities are not successful above 4,000 m. Because of their adaptation and origin, vicuñas have greater productivity and yield than introduced animal species.

TRANSLATION OF TEXT IN THE IMAGE:

Adaptations of the vicuña to environmental conditions in the Puna. Cold – fine fiber, 10 microns; lack of oxygen – 14 million red blood cells / mm3 of blood; color of the Puna scrubland – mimetic light brown color; hard plants to forage – incisors grow continuously until the age of 5; open areas – long neck to see predators easily from a distance; cold nights – longer hair on chest to cover limbs; rocky terrain – cushioned hooves;



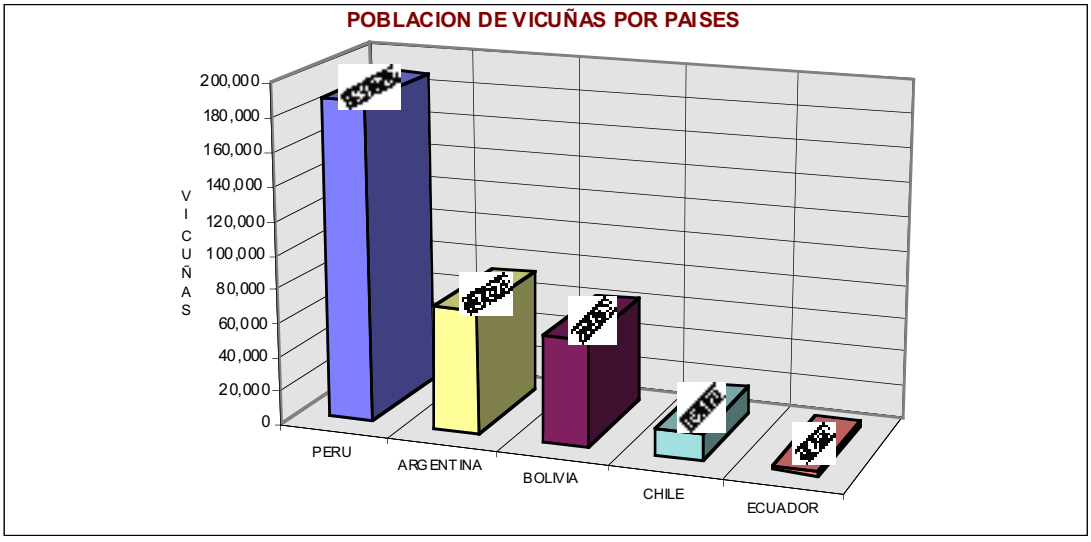
1.4. Population:

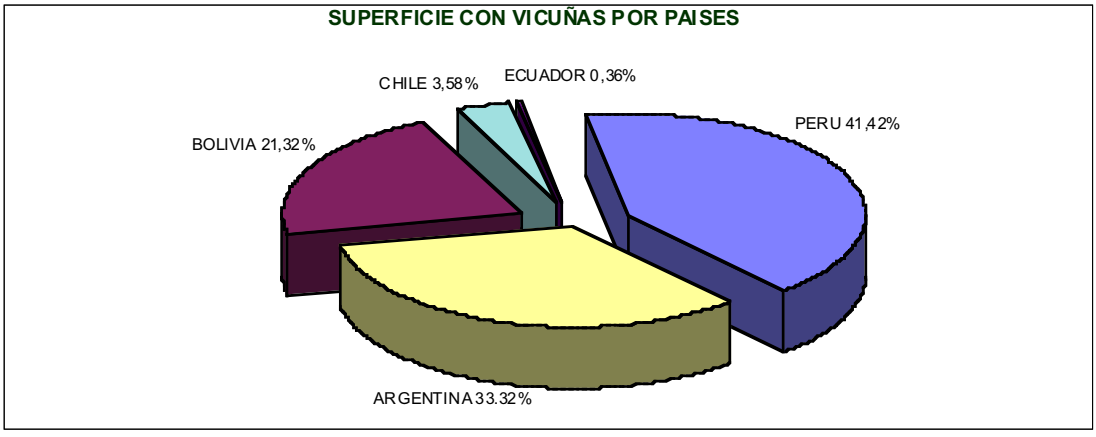
1.4.1. *Global population size:*

The current vicuña population (in 2006) in its whole range (Peru, Argentina, Bolivia, Chile and Ecuador) is around 340,000 individuals, distributed in over 16 million hectares of natural habitat. According to the estimates, Peru has the largest population – over 188,000 individuals – and area of distribution – close to 7 million hectares.

POBLACION DE VICUÑAS POR PAISES DE ORIGEN

PAIS	VICUÑAS		SUPERFICIE		AÑO DE CENSO	FUENTE
	Población	%	Hectáreas	%	O PROYECCIÓN	
PERU	188,327	54.95	6,661,498	41.42	2006	Convenio Vicuña 2007
ARGENTINA	72,678	21.21	5,357,800	33.32	2006	Convenio Vicuña 2007
BOLIVIA	62,869	18.34	3,428,356	21.32	2006	Convenio Vicuña 2007
CHILE	16,170	4.72	575,250	3.58	2006	Convenio Vicuña 2007
ECUADOR	2,683	0.78	58,560	0.36	2006	Convenio Vicuña 2007
TOTAL	342,727		16,081,464		2006	





Fuente: Convenio Vicuña. Elaboración: Domingo Hoces.

Translation of text in tables and charts above: Vicuña population by countries of origin;

Three official national surveys have been made in Peru (1994, 1997 and 2000) with an average frequency of 4 years, using the Direct Count Method. The results are shown in the table below:

DEPARTAMENTO	CENSO 1994 (INRENA)			CENSO 1997 (INRENA-CONACS)			CENSO 2000 (CONACS)		
	Vicuñas Censadas	Ha	% Poblac	Vicuñas Censadas	Ha	% Poblac	Vicuñas Censadas	Ha	% Poblac
1.- Ayacucho	18,455	753,000	27.73	33,377	753,000	32.35	40,390	753,000	34.03
2.- Puno	8,618	1,700,783	12.95	14,307	1,732,935	13.87	18,107	1,732,935	15.26
3.- Lima	12,286	281,766	18.46	16,961	281,766	16.44	17,689	281,766	14.91
4.-Junín	7,106	233,929	10.68	10,515	292,369	10.19	11,408	292,369	9.61
5.- Apurimac	10,573	832,182	15.89	11,551	330,400	11.20	10,020	330,400	8.44
6.- Huancavelica	1,902	27,424	2.86	6,750	679,657	6.54	8,745	679,657	7.37
7.- Cusco	1,049	966,304	2.78	2,817	307,300	2.73	4,209	307,300	3.55
8.- Arequipa	2,079	774,180	3.12	2,898	774,180	2.81	3,681	774,180	3.10
9.- Ica				1,905	70,171	1.85	1,583	70,171	1.33
10.- Tacna	487	293,728	0.73	720	288,728	0.70	1,214	288,728	1.02
11.- Ancash	661	263,136	0.99	594	709,795	0.58	684	709,795	0.58
12.- Pasco	248	48,692	0.37	66	48,692	0.05	343	48,692	0.29
13.- Moquegua	1,305	224,408	1.96	294	227,711	0.28	293	227,711	0.25
14.- Cajamarca				72	100	0.07	235	600	0.20
15.- Huanuco	865	32,820	1.30	316	32,820	0.31	51	32,820	0.04
16.- La Libertad	120	165,686	0.18	29	51,445	0.03	26	51,445	0.02
TOTAL	66,559	6,598,137	100.00	103,161	6,660,998	100.00	118,676	6,661,198	100.00

Source: CONACS

Translation of the text in the table above, from top to bottom and left to right: Survey; department; vicuñas surveyed; ha; % of population;

In the latest national survey made in 2000 in Peru, 118,676 individuals were directly counted. Along with an estimation of a few populations that had not been surveyed, the total figure estimated for Peru was of about 130,000 individuals. In spite of the poaching outbreaks that occur every few years, estimates of population increases have led to projecting a population of 188,327 individuals in 2006 in Peru. Such estimates are based on direct reports from vicuña rural management units, fiber production volumes and reports from the field officials of CONACS (National Council of South American Camelids) supervising the fiber harvest operations.

Projection of vicuña populations in Peru, 2001–2006 period

N°	DEPARTMENT	SURFACE Ha.	2000 Survey	2001 Project.	2002 Project	2003 Project.	2004 Project	2005 Project	2006 Project
1	AYACUCHO	753 000	40 390	43 621	47 111	50 880	54 959	59,346	64,094
2	PUNO	1 732 935	18 107	19 556	21 120	22 810	24 634	26,605	28,733
3	LIMA	281 765	17 689	19 104	20 632	22 283	24 066	25,991	28,071
4	JUNIN	292 369	11 408	12 321	13 306	14 371	15 520	16,762	18,103
5	APURIMAC	330 400	10 020	10 822	11 687	12 622	13 632	14,723	15,900
6	HUANCAVELICA	679 657	8 745	9 445	10 200	11 016	11 897	12,849	13,877
7	CUZCO	387 330	4 209	4 546	4 909	5 302	5 726	6,184	6,679
8	AREQUIPA	774 180	3 681	3 975	4 294	4 637	5 008	5,409	5,841
9	ICA	70 171	1 583	1 710	1 846	1 994	2 154	2,326	2,512
10	TACNA	288 728	1 214	1 311	1 416	1 529	1 652	1,784	1,927
11	ANCASH	709 795	684	739	798	862	931	1,005	1,086
12	PASCO	48 592	343	370	400	432	467	504	545
13	MOQUEGUA	227 711	293	316	342	369	399	431	465
14	CAJAMARCA	600	235	254	274	296	320	346	373
15	HUANUCO	32 820	51	55	59	64	69	75	80
16	LA LIBERTAD	51 445	26	28	30	33	35	38	41
	TOTAL	**6 661 498**	**118 678**	**128 172**	**138 426**	**149 500**	**161 460**	**174,378**	**188,327**

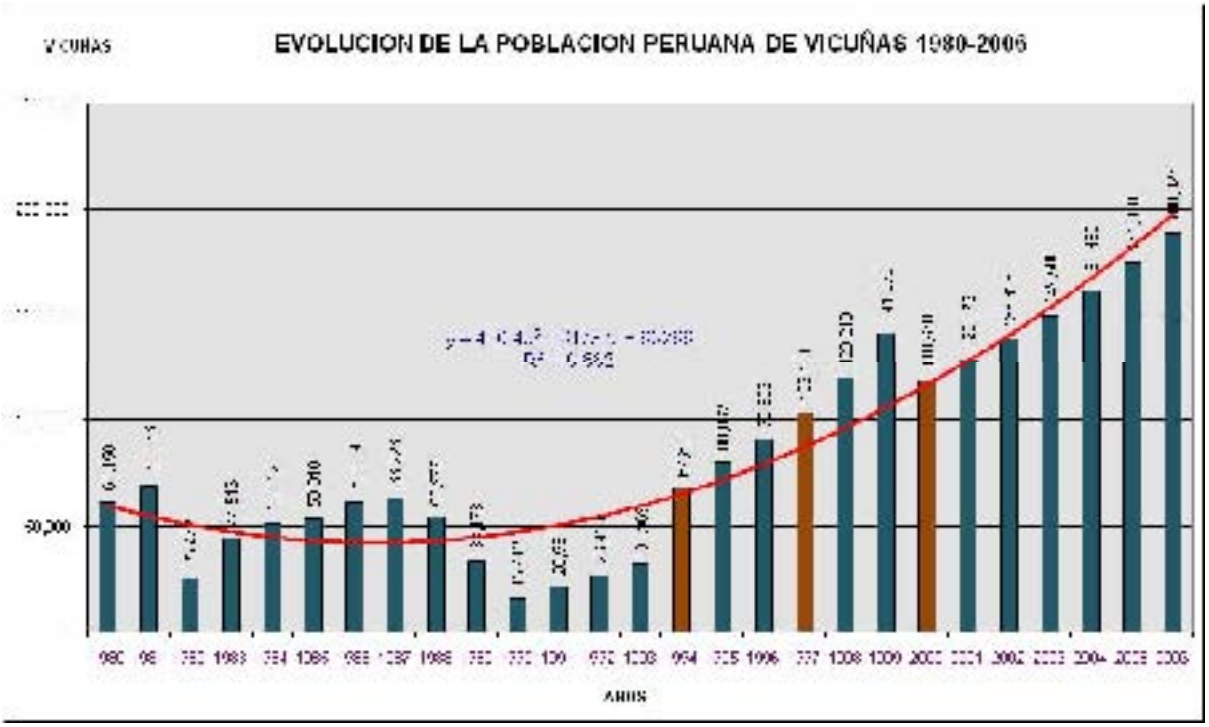
Source: National Survey 2000 and Projections by CONACS. Adaptation: Domingo Hoces

1.4.2. *Current global population trends:*

_X__ Increasing ____Decreasing ____ Stable ___Unknown

According to the population data provided by the countries of origin every year, the population has been experiencing a gradual increase over the last 10 years. The trend seems to be approaching its turning point before starting to get closer to the natural asymptote determined by the species' population carrying capacity as well as the intrinsic limitations of the other activities that take place in the habitat it occupies.

To appreciate the trend of the Peruvian vicuña population, it is necessary to start by looking at the period from the 1980s to 1993, when close to 3 million hectares were controlled by the *Proyecto Especial Utilización Racional de la Vicuña* (Special Project for the Rational Use of Vicuña). A critical period began in 1987 with the influence of subversive actions in Peru, which led to the virtual disappearance of the vicuña program until 1993. Another stage began in 1994 with the gradual decline of the subversion, the opening of the legal fiber market due to the change in the CITES Appendices and favorable agreements reached in the Vicuña Convention. This was the stage of population recovery, which still continues. The positive change is reflected in the difference between the population figures in the surveys made in 1994 and 1997.



Translation of the text in the table above: Evolution of the vicuña population of Peru 1980-2006; years

1.5. Conservation status

1.5.1. *Global conservation status* (according to the IUCN Red List):

___Critically endangered _X_Least concern
___Endangered ___Near threatened
___Vulnerable ___Data deficient

1.5.2. *Conservation status in the country for which the case study is presented*
The classification of endangered wild animals in Peru (*Categorización de las Especies amenazadas de Fauna Silvestre*) was updated and approved by Supreme Decree No. 034-2004-AG of 17 September 2004. The vicuña is included in the category NEAR THREATENED in this classification.

1.5.3. *Main threats in the country for which the case study is presented*

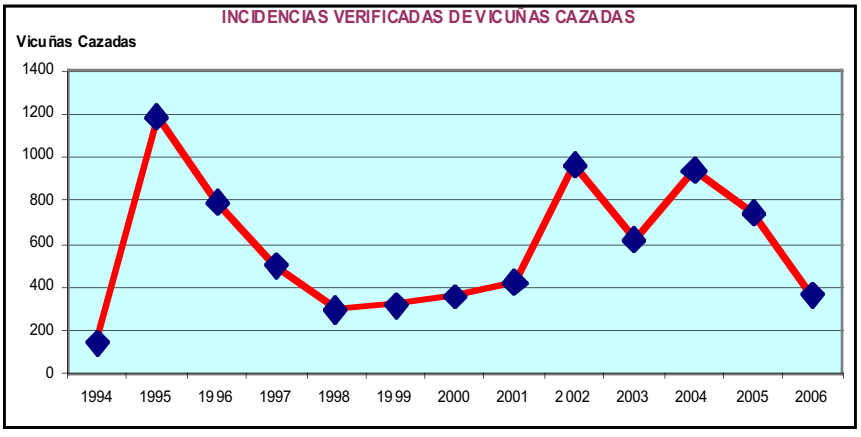
___No threats
___Habitat loss / degradation (human induced)
___Invasive Alien Species (that directly affect the species)
_X Direct exploitation (hunting / harvesting)
___Incidental mortality (e.g., due to manipulation)
___Persecution (e.g., pest control)

___Pollution (affecting the habitat and/or the species)
_X_Other: _ Farming interests, hybridization__
___Unknown

INCIDENCIAS DE CACERIA FURTIVA DE VICUÑAS 1994 - 2006

Nº	DEPARTAMENTO	VICUÑAS CAZADAS													TOTAL	%
		1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006		
1	AYACUCHO	46	415	281	190	86	35	19	217	389	287	189	149	192	2,495	32.64
2	LIMA	0	104	166	41	0	47	29	46	345	138	426	34	14	1,390	18.18
3	APURIMAC	0	219	219	151	98	61	19	19	72	93	0	0	58	1,009	13.20
4	HUANCAVELICA	0	51	0	0	0	81	174	75	22	29	292	59	100	883	11.55
5	PUNO	98	179	68	92	112	16	31	12	0	7	0	107	0	722	9.45
6	ICA	0	98	0	0	0	0	0	0	0	0	0	260	0	358	4.68
7	JUNIN	1	3	2	18	0	9	13	7	132	59	14	98	0	356	4.66
8	CUSCO	0	115	55	0	0	45	20	27	0	2	12	0	0	276	3.61
9	AREQUIPA	0	2	0	9	0	25	52	20	0	5	5	37	0	155	2.03
	TOTAL	145	1,186	791	501	296	319	357	423	960	620	938	744	364	7,644	100.00

Fuente: Oficinas Regionales del CONACS. Elaboración Domingo Hoces



Translation of the text in the table and chart above: Table: Incidence of Vicuña Poaching 1994-2006; Department; vicuñas hunted; Chart: Verified Incidence of Vicuñas Hunted; vicuñas hunted.

In 1995, the verified number of vicuñas killed by poachers in Peru exceeded 1,100 individuals yearly; these figures were reduced to an average of 300 individuals in the following 3 years. Overall, the average number was slightly over 600 animals killed by poaching (see the table and chart above). However, this figure increased again to 1,305 individuals between 2002 and 2004. These numbers are still far from the levels that really endangered the Peruvian population of vicuña in the years before 1995, when annual levels of vicuñas killed may well have reached a number close to 18,000 individuals.

Since the improvements made in the construction of the road linking Arequipa and Juliaca in the south of Peru, started by the Ministry of Transport in 1999 and involving 80 km in the Reserva Nacional de

Salinas and Aguada Blanca, a protected area, frequent deaths of vicuñas due to road accidents have been reported. Corrective measures have been taken to reduce such incidents by signaling animal crossings and speed limits in critical stretches. A video has also been prepared to raise awareness about the problem of vicuñas killed in road accidents among drivers and passengers at the Arequipa bus station.

Since 2006, a number of public officials and academics specialized in animal husbandry have promoted the hybridization of vicuñas —crossing vicuñas and alpacas— with great insistence and political scope. They argue that the hybrids would bring about greater technical and commercial advantages than vicuñas and alpacas in alleviating the poverty of the Peruvian Andes. This has been rejected by the Peruvian scientific community and specialized press, international conservation organizations and the Vicuña Convention.

ESPECIAL SEMANA DE BANDERA

Especial de
ESCUDO NACIONAL

Nuestro segundo icono del escudo es la grácil y delicada vicuña. La fibra que la cubre la convierte en la especie más valiosa de los camélidos y a la vez la más vulnerable

La eterna lucha de la vicuña

La reina de los camélidos

Translation of the heading of the article: The eternal struggle of the vicuña

2. MANAGEMENT OF THE SPECIES IN THE COUNTRY FOR WHICH THE CASE STUDY IS PRESENTED

2.1. Management measures

The management measures mainly aim at maintaining a minimum sustainable population for the use of the vicuña's valuable fiber. However, there are other indirect uses for vicuñas such as ecotourism. For this purpose, it is necessary to protect the populations from illegal trade, periodically monitor the population groups, carry out research on management technology and develop the results, implement appropriate legislation and promote a controlled and fair market for the farmers' economic interests.

2.1.1. *Management history*

POLICIES IMPLEMENTED

In times of the Incas:

- Practice of the "CHACCU"
- Fiber for nobility only
- Meat of vicuñas and other species for the people

In present times:

- Until 1978: Protection, dissemination
- 1980 – 1990: Development of technology (Vicuña Project)
- 1994 – 2000: Participation of rural communities and opening of the international market, association with the other camelids (Creation of CONACS)
- 2001 – Present: Commercial use with little interference by the State

2.1.2. *Purpose of the management plan*

Conserve the species by reducing poaching, increase the population and maintain sustainable levels, use the fiber obtained through the shearing of live animals, sell the fiber in the best possible conditions to benefit the people in the high Andes.

2.1.3. *General elements of the management plan*

- Conservation of the species, guaranteeing its sustainability
- Role of the State, through appropriate legislation and policies
- Participation of local people in management decisions and benefits

2.1.4. *Restoration or mitigation measures*

One of the alleviating or reinforcing measures for the conservation of vicuñas has been to promote the active and direct participation of rural people in the conservation and benefits of the use of vicuñas.

This was first done through the membership of the so-called VICUÑA COMMITTEES and later through restocking programs in the country.

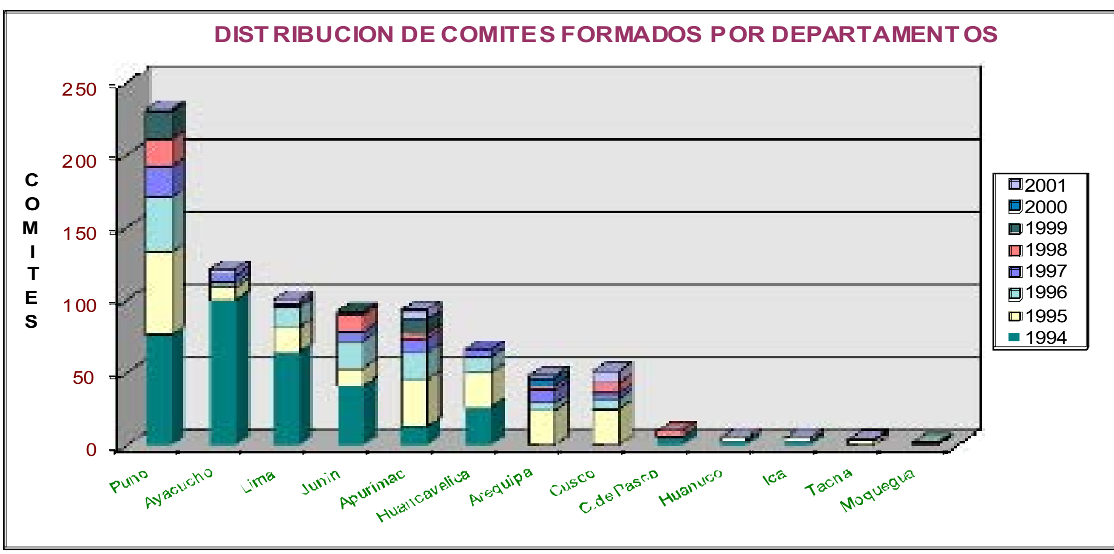
COMITES COMUNALES DE VICUÑAS FORMADOS Y RECONOCIDOS POR EL CONACS

DEPARTAMENTO	1994		1995		1996		1997		1998		1999		2000		2001		TOTAL 1994 - 2001			
	F.	R.	F.	R.	F.	R.	F.	R.	F.	R.	F.	R.	F.	R.	F.	R.	F.	%	R.	%
1.- Puno	79	79	67	[illegible]	[illegible]	[illegible]	21	0	18	45	19	0	1	0	5	5	[illegible]	[illegible]	[illegible]	[illegible]
2.- [illegible]	105	100	8	5	3	7	3	0	0	3	0	0	0	0	4	3	[illegible]	[illegible]	[illegible]	[illegible]
3.- [illegible]	64	[illegible]	17	5	14	4	5	0	0	14	0	0	3	0	5	5	[illegible]	[illegible]	[illegible]	[illegible]
4.- Junin	49	41	13	3	18	40	8	0	12	13	3	0	0	0	3	5	[illegible]	11.09	[illegible]	[illegible]
5.- [illegible]	13	13	[illegible]	17	18	17	8	0	4	28	10	0	0	0	8	3	[illegible]	[illegible]	[illegible]	[illegible]
6.- [illegible]	[illegible]	[illegible]	54	[illegible]	11	11	5	0	0	8	0	0	0	0	5	5	[illegible]	[illegible]	[illegible]	[illegible]
7.- [illegible]	0	0	34	7	8	[illegible]	0	0	8	18	0	0	8	0	3	5	[illegible]	[illegible]	[illegible]	[illegible]
8.- [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7	[illegible]	4	0	7	5	0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9.- C.de Pasco	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	4	4	0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10.- [illegible]	3	3	3	3	0	[illegible]	0	0	0	0	0	0	0	0	3	3	[illegible]	[illegible]	[illegible]	[illegible]
11.- Ica	3	3	3	[illegible]	0	[illegible]	[illegible]	0	0	4	0	0	0	0	3	5	[illegible]	[illegible]	4	[illegible]
12.- [illegible]	0	0	[illegible]	[illegible]	0	[illegible]	0	0	0	1	1	0	0	0	3	3	4	[illegible]	4	[illegible]
13.- [illegible]	0	0	1	[illegible]	1	[illegible]	0	0	0	1	0	0	0	0	2	2	[illegible]	[illegible]	3	[illegible]
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	

Fuente: [illegible]

F. = [illegible]

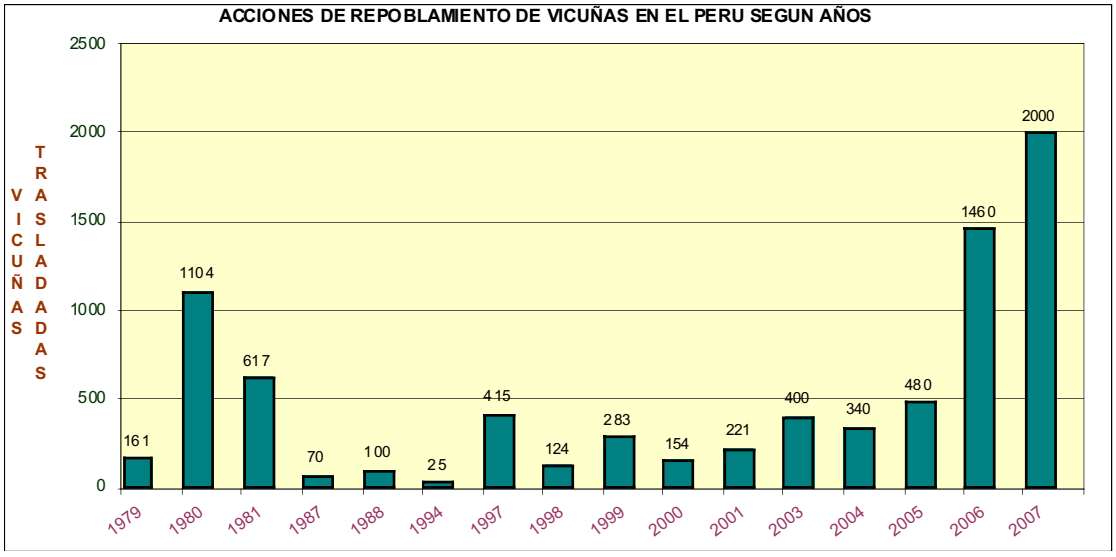
R. = Comités reconocidos por el CONACS



ACCIONES DE REPOBLAMIENTO DE VICUÑAS EN EL PERU 1979 - 2007

LOCALIDAD ORIGEN	LOCALIDAD DESTINO	1979	1980	1981	1987	1988	1994	1997	1998	1999	2000	2001	2003	2004	2005	2006	2007	TOTAL VICUÑAS	%
Pampa Galeras	1.- Junin		395	617														1,012	12.72
Pampa Galeras	2.-Huancavelica	121	601										400			500		1,622	20.39
Andamarca	Huancavelica														120			120	1.51
Pampa Galeras	3.- Arequipa	40						95										135	1.70
Arequipa	Arequipa										74	78						152	1.91
Pampa Galeras	4.- Ancash		108					100										208	2.62
Junin	Ancash											50		53				103	1.29
Pampa Galeras	5.-ECUADOR					100				100								200	2.51
Pampa Galeras	6.- Cajamarca						25	170								240		435	5.47
Pampa Galeras	7.-C.de Pasco							50		72								122	1.53
Junin	C.de Pasco										29							29	0.36
Apurimac	8.-Cusco								100									100	1.26
Puno	9.-Puno									74				47				121	1.52
Pampa Galeras	10.-La Libertad				70									240		240		550	6.91
Puno	La Libertad																2000	2,000	25.14
Pampa Galeras	11.-Pampa Galeras									37	51	69			120			277	3.48
Apurimac	12.-Apurimac								24			24						48	0.60
Pampa Galeras	Apurimac															480		480	6.03
Cabana	Apurimac														240			240	3.02
TOTAL	TOTAL	161	1104	617	70	100	25	415	124	283	154	221	400	340	480	1460	2000	7954	

Fuente: Ex Proyecto Especial Vicuña, Proyecto Barbara D'Achile, Of.regionales CONACS. Elaboracion: Domingo Hoces



Translation of the text in the tables and charts above: Table 1: Vicuña committees formed and recognized by CONACS; F: committees formed; R: committees recognized by CONACS; Chart 1: Distribution of committees formed by Department; Table 2: Restocking of vicuñas in Peru 1979-2007; origin; destination; Chart 2: Restocking of vicuñas in Peru by year;

2.2. Monitoring system

2.2.1. *Methods used to monitor the harvest*

Given the broad territorial distribution of the vicuña in Peru as well as its numerous beneficiaries, direct control of the fiber harvest in the field was very limited. Consequently, the Single Register of Wild South American Camelids (*Registro Único de Camélidos Sudamericanos Silvestres*) was established by the legislation on the Vicuña (*Reglamento de la Ley de la Vicuña*) to control the conservation, management and use of the vicuña in Peru. The Certificate of the Single Register of Wild South American Camelids – RUCSSP is issued for this purpose. Although 430 RUCSSP certificates were programmed for the period between July 2006 and June 2007, 522 certificates were actually issued, exceeding the estimations for the period by 121.40%.

Summary of RUCSS certificates issued in the July 2006-June 2007 period

Mes	Producción de Procedencia					Transformación	Prendas de Vestir		Evaluación del Proyecto		
	Fibra Sucia	Fibra Predescerdada	Fibra Descerdada	Fibra Lavada	Fibra Cardada	Hilo	Tela	Prendas	Programado	Ejecutado	Avance Porcentual (%)
Periodo Julio - Diciembre 2006											
Julio	18	0	0	1	0	0	2	1	36	22	62.86
Agosto	22	0	0	0	2	0	5	7	25	35	144.00
Setiembre	4	17	0	0	0	0	0	0	55	21	38.18
Octubre	14	42	10	0	0	0	2	1	26	19	276.00
Noviem	26	4	4	0	0	0	0	0	50	33	66.00
Diciem	7	0	0	0	0	4	6	6	40	21	62.50
Periodo Enero - Junio 2007											
Enero	46	0	0	0	0	0	11	7	50	53	106.00
Febrero	41	13	0	0	0	2	3	14	50	73	146.00
Marzo	44	22	6	0	0	2	0	0	40	84	210.00
Abril	12	8	2	0	0	0	0	0	30	22	73.33
Mayo	6	22	26	0	0	4	4	18	10	73	780.00
Junio	2	0	0	0	0	1	0	2	10	6	60.00
TOTAL:	249	128	47	1	2	13	32	60	430	522	121.40

Fuente: Dirección de Conservación – CONACS

2.2.2. *Confidence in monitoring*

Confidence is based on the fact that the successive records corresponding to the various stages of the harvest, processing and marketing of vicuña fiber are related to one another and to their origin, which makes it difficult to falsify information.

2.3. Legal framework and law enforcement

In Peru, several national laws protect vicuñas and regulate their management and use. The most important and directly applied example is

Act 26495 of 23 June 1995 and its Regulation adopted by Supreme Decree No. 007-96 -AG of 7 June 1996. This Act establishes the ownership and marketing regime, as well as sanctions for hunting vicuñas, guanacos and their hybrids. The Forest and Wildlife Act (*Ley Forestal y de Fauna Silvestre*) of 13 May 1975 and its Regulation on Wildlife Conservation (*Reglamento de Conservación de Fauna y Flora Silvestre*) adopted by Supreme Decree No. 158-77- AA of March 1977 are still valid. They apply to vicuñas as a wildlife species by regulating authorizations for scientific and commercial use and establishing sanctions for infringements. Legislative Decree No. 653 (Act on the Promotion on Investments in the Agricultural Sector) of 1991 and its Regulation adopted by Supreme Decree No. 048-91-AG authorizes the harvest (i.e. slaughter) of vicuñas when it is technically justified and endorsed by a Ministerial Resolution, among other aspects currently covered by Act 26496.

Until Act 26496 entered into force, the Penal Code established very limited penalties for illegal vicuña hunters (considering the slaughter of vicuñas as a crime against the environment and natural resources). Such penalties have been increased with Act 26496.

Since 1995, there have been no significant changes in legislation regarding vicuñas to reduce their protection. Supreme Decree No. 007-96-AG was readjusted in 2004 regarding the gathering of fiber, trade in the products and the use of the official brand in their trade (Supreme Decree No. 008-2004-AG and Supreme Decree No. 006-2005-AG of January 2005, which modifies Art. 30 of Supreme Decree No. 008-2005-AG regarding the granting of the brands VICUÑA PERU and VICUÑA PERU ARTESANIA). Several recently issued regulations are favorable for the management of the species. One of them is the issuance of Supreme Decree No. 034-2004-AG of 17 September 2004, which approves the Classification of Endangered Species of Wild Animals, according to which the vicuña is NEAR THREATENED (NT). On 9 February 2005, Supreme Decree No. 010-2005-AG was issued, "designating the National Council of South American Camelids – CONACS as the CITES Management Authority regarding Wild South American Camelids (CITES-CONACS)."

Another legal instrument that benefits the vicuña is the Vicuña Convention signed by Peru, Bolivia, Chile and Ecuador in 1979.

Peru has participated continuously and actively in the 26 regular annual meetings and 5 extraordinary meetings held so far. Through this instrument, the vicuña has benefited from a general management with important results: first, the vicuña was saved from extinction throughout its range with a joint protection strategy applied in all the range States simultaneously. Technology for the management of the

species was later developed by exchanging experiences with each Government through the meetings of the Convention and special technical meetings. Since 1987, the Vicuña Convention has had a decisive participation in the achievements reached in vicuña conservation, especially the populations of Peru and Chile. Indeed, the international trade in fabric made of vicuña fiber was first opened during the VI Conference of the Parties using the brands "VICUÑANDES" and "PRE-CITES". Vicuñas from Peru, Chile and Bolivia were reintroduced in Ecuador between 1988 and 1993 thanks to the support and the agreements reached in the Convention. In the 1992-1994 period, the proposal to downlist the Peruvian vicuña population from Appendix I to Appendix II of the CITES Convention was successful. Since then, the use of the Peruvian vicuña population has directly benefited more than 700 rural communities of the high Andes, protecting the species from a resurgence of poaching. The fabric can now be manufactured anywhere in the world, which provides access to the best textile manufacturing techniques and therefore leads to the best quality and prices for finished products; an authorization was also obtained to process and market over three tons of fiber from dead animals from seized materials and authorized slaughters since 1980.

In the X Conference of the Parties to the CITES Convention in 1997, the support of the member countries of the Vicuña Convention led to downlisting most of the vicuña populations of Bolivia and Argentina to CITES Appendix II and allow the processing and international trade of luxury crafts and knitted articles made of vicuña fiber, changing the brand from "VICUÑANDES" to "VICUÑA." In 1998, on occasion of its 25th anniversary, the CITES Convention granted the Vicuña Convention a Certificate of Recognition for its outstanding contribution to the conservation of wildlife in the world. As the depositary of the Convention, Peru officially received the recognition.

3. UTILIZATION AND TRADE

3.1. *Type of use* (origin) *and purposes*

In Peru, since the legal market was opened in 1994, use of vicuñas involves only the fiber obtained from the shearing of live animals, supervised by the State for its international trade under CITES controls to directly benefit rural communities in the high Andes that manage vicuñas on their land. However, management of vicuñas in semi-captivity was introduced in 1996. It involves the use of 1,000 ha enclosures with metallic fences (sustainable use modules) housing 250-300 individuals. This system currently applies to 27,000 vicuñas, which amount to 80% of the annual production of fiber.

Módulos de Uso Sustentable para la Crianza de Vicuñas En Semicautiverio

Nº	DPTO.	Nº DE CERCOS	Nº VICUÑAS AL 2003	%
1	Ayacucho	75	5,193	19.39
2	Apurimac	30	3,740	13.99
3	Arequipa	14	915	3.42
4	Junin	25	1,616	7.38
5	Ica - Huancavelica	24	1,494	5.59
6	Cusco	9	726	2.72
7	Puno	65	9,036	33.90
8	Lima	20	997	3.73
		267	26,737	100.00

Fuente: Programa de Camélidos Silvestres CONACS (2001)

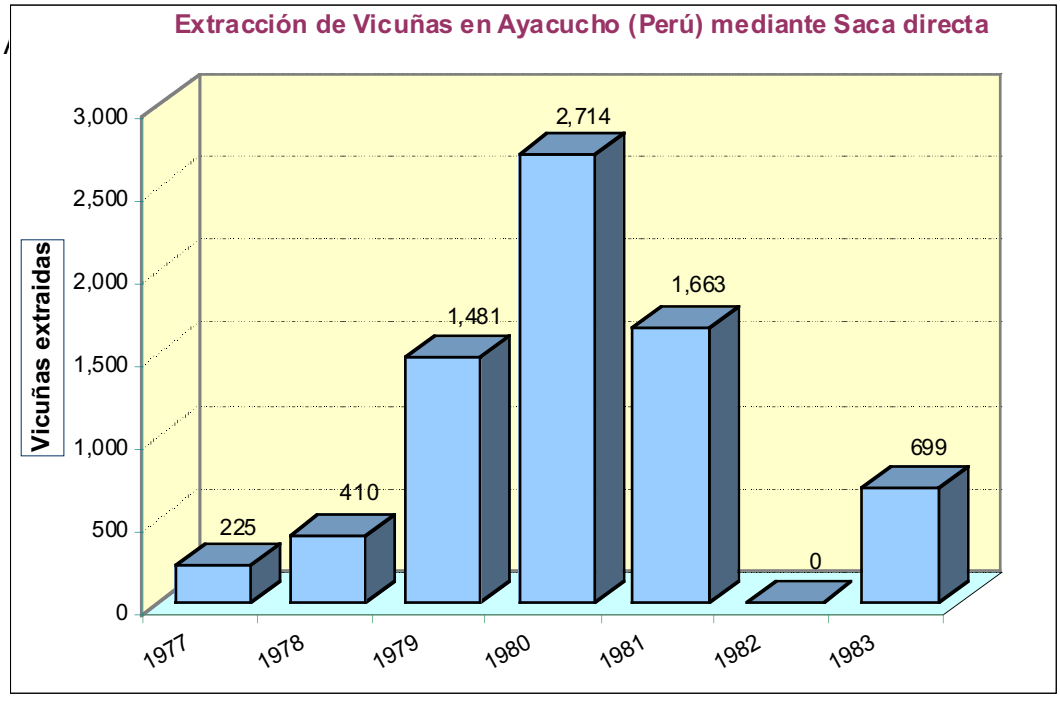
Translation of the text in the table above: Sustainable Use Modules for the Breeding of Vicuñas in Semi-captivity. Number; Department; number of enclosures; number of vicuñas in 2003;

3.2. Harvest

3.2.1. *Harvesting regime*

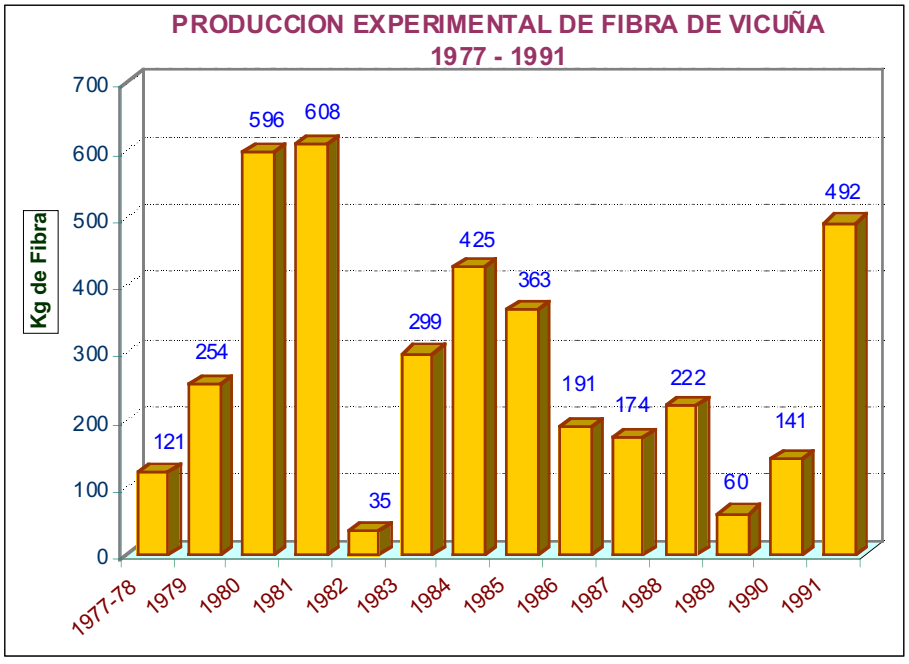
The harvesting regime refers exclusively to the use of the fiber obtained from the shearing of live animals. No fiber is harvested from hunted or

dead animals, except in one single case in Pampa Galeras in the first years of management, when the culling of over 7,000 individuals was authorized between 1977 and 1983 because of overpopulation. Between 1977 and 1981, there was also an experimental production of fiber.



FUENTE: Estadísticas del ex Proyecto Especial Vicuña. Elaboración: Domingo Hoces

Translation of the text of the chart above: Slaughter of vicuñas in Ayacucho (Peru)



FUENTE: Estadisticas del ex Proyecto Especial Vicuña. Elaboración: Domingo Hoces

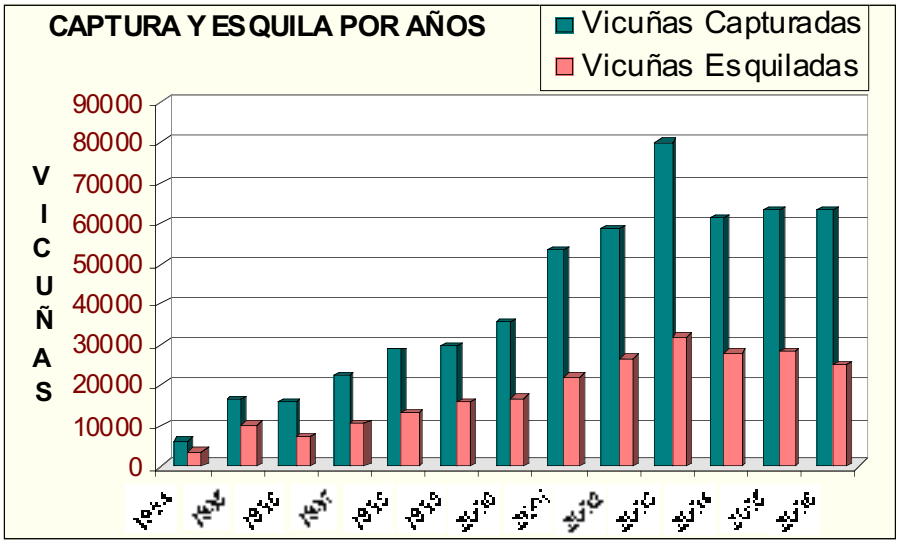
Translation of the text in the chart above: Experimental production of vicuña fiber 1977-1991; kg of fiber

Commercial use of fiber began in 1994 with the opening of the legal market, with the direct and active participation of the rural organizations involved. Until 2006, about 46,000 kg of fiber had been produced.

Captura y Esquila		
Año	Vicuñas Capturadas	Vicuñas Esquiladas
1994	6128	3278
1995	16204	9616
1996	15683	7145
1997	22118	10352
1998	28612	13083
1999	29859	15462
2000	35637	16956
2001	53273	21711
2002	58542	26385
2003	80317	32058
2004	61455	27698
2005	63124	28450
2006	63203	24969

Produccion Fibra		
Año	Kg de Fibra	Acum Fibra
1994	832	832
1995	2,223	3,055
1996	1,478	4,533
1997	2,008	6,541
1998	2,543	9,084
1999	3,052	12,136
2000	3,427	13,411
2001	4,257	19,819
2002	5,149	24,968
2003	6,093	31,061
2004	5,083	36,144
2005	5,221	41,365
2006	4,635	46,000

Fuente: Ex Proyecto Vicuña y CONACS. Elaboración: Domingo Hoces



	PRODUCCIÓN PRELIMINAR DE FIBRA EN EL AÑO 2002			
Nº	Departamento	Producción de fibra (kg) dentro de cercos	Producción de fibra (kg) fuera de cercos	TOTAL Kg
1	Ayacucho	2.908,390		2.908,390
2	Puno	473,573		473,573
3	Junin	335,514	454,410	789,924
4	Lima	176,110		176,110
5	Apurimac	178,908	43,074	221,982
6	Huancavelica	51,950	90,360	142,310
7	Ica	36,000	69,400	105,400
8	Arequipa	72,320	40,687	113,007
9	Cusco	31,652	69,044	100,696
10	Tacna	21,367		21,367
11	Pasco	24,045		24,045
	TOTAL	**4.309,219**	**767,575**	**5.076,794**
	%	84,88	15,12	100,00
	Fuente: CONACS Elaboración: domingo Hoces			

Translation of the text in the tables and charts shown above: Table 1: Capture and shearing; vicuñas captured; vicuñas shorn; Fiber production; year; kg of fiber; fiber accumulated; Chart 1: Capture and shearing by year; vicuñas captured; vicuñas shorn; Chart 2: Fiber production by year; kg fiber; Table 2: Preliminary fiber yield in the year 2002; Number; Department; fiber yield (kg) in enclosures; fiber yield (kg) outside enclosures; total kg

3.2.2. *Harvest management / control*

The use of the fiber is controlled by the State through the following legal and institutional instruments:

— The Single Registry of Wild South American Camelids - RUCSS
— The control of the shearing season. Capture and shearing are only authorized in Peru between

May and November every year.

Controls are reinforced through the so-called Technical Committee for Trade in Fiber (*Comité Técnico Comercializacion de Fibra* – CTN). The CTN was established on 2 September 2004, and its Technical Secretariat is held by CONACS. The CTN is formed by three Sectors (the Production, Technical and Consumer Sectors) that represent the diverse players involved in the capture and shearing of vicuñas, research, processing, marketing and monitoring vicuña fiber. The Production Sector has 9 members who represent producer organizations (Rural Communities, Cooperatives, and Associations of Producers, among others) and service providers.

The Technical Sector is formed by 7 members that belong to public institutions devoted to research on vicuñas or wild South American camelids and a private researcher.

The Consumer Sector is formed by 5 members from companies linked to the processing and marketing of vicuña fiber. So far, the CTN has generated the NTP (Peruvian Technical Standard) *Fibra de Vicuña en Vellón: Definición y Determinación de la longitud de mecha* (NTP 231.350.2006) (Vicuña fiber in fleece. Definitions and determination of wick length), adopted by INDECOPI Resolution No. 0001-2006/CRT-INDECOPI, published on 30 January 2006 (INDECOPI is the Peruvian Consumer Protection Commission). The discussion and formulation of such regulations required 9 meetings of the CTN, which concluded on 6 September 2005.

The Draft Peruvian Technical Standard (PNTP) on the mechanical shearing of vicuña was concluded and adopted in 2007. It is the first standard proposed and adopted by the Technical and Commercial Regulation Commission of INDECOPI.

3.3. Legal and illegal trade levels:

Legal trade of fiber in Peru represents an annual production of around 5,000 kg, 20% of which is produced in Peru, while the rest is directly exported by the regional groups of beneficiary communities under the supervision of the State through the CITES Authority and the RUCSS register. Illegal trade is probably proportional to the number of ani-

mals killed by poachers, although its incidence levels are currently under control.

II. Non-detriment finding procedure (NDFs)

1. IS THE METHOD USED BASED ON THAT PROPOSED BY THE IUCN?

__Yes _X_No

2. CRITERIA, PARAMETERS AND/OR INDICATORS USED

Direct information from activities devoted to the conservation, management and use of the vicuña in Peru.

3. MAIN SOURCES OF INFORMATION, INCLUDING FIELD SURVEYS, SAMPLING METHODS AND ANALYSIS USED

— The focal institutions of the Peruvian State (Proyecto Vicuña, CONACS, INRENA, CITES Authority, Sociedad Nacional de la Vicuña)
— Reports from the regular meetings of the Vicuña Convention
— Agreements of the CITES Convention and IUCN data

4. QUANTITATIVE AND QUALITATIVE ASSESSMENT OF THE INFORMATION USED IN THE EVALUATION

Direct processing and use of national and international statistics on the species

5. MAIN PROBLEMS, DIFFICULTIES AND CHALLENGES FOUND IN MAKING THE NDF

— Scattered and outdated data
— Discontinuous information
— Data lost or not directly accessible
— Use of different names and concepts to refer to the same parameters
— Incorrect use of some zootechnical or animal husbandry concepts and schemes in data or statistics on vicuñas.

6. RECOMMENDATIONS

— Manage the specific concepts, definitions, work schemes and policies that correspond to the vicuña as a WILD animal, eradicating the use of livestock farming synonyms.
— Not include the vicuña in programs, institutions, projects, laws or policies that refer to the domestic species alpaca and/or llama or in the definitions or concepts that refer to South American camelids in general.