

Protection of Children

We have analyzed this rule under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. This rule is not an economically significant rule and does not create an environmental risk to health or risk to safety that may disproportionately affect children.

Indian Tribal Governments

This rule does not have tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it does not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

Energy Effects

We have analyzed this rule under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. We have determined that it is not a "significant energy action" under that order because it is not a "significant regulatory action" under Executive Order 12866 and is not likely to have a significant adverse effect on the supply, distribution, or use of energy. It has not been designated by the Administrator of the Office of Information and Regulatory Affairs as a significant energy action. Therefore, it does not require a Statement of Energy Effects under Executive Order 13211.

Environment

We have considered the environmental impact of this rule and concluded that under figure 2-1, paragraph (34)(g), of Commandant Instruction M16475.ID, this rule is categorically excluded from further environmental documentation because we are establishing a safety zone. A "Categorical Exclusion Determination" is available in the docket for inspection or copying where indicated under ADDRESSES.

List of Subjects in 33 CFR Part 165

Harbors, Marine Safety, Navigation (water), Reporting and recordkeeping requirements, Security measures, Waterways.

For the reasons discussed in the preamble, the Coast Guard amends 33 CFR part 165 as follows:

PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

1. The authority citation for part 165 continues to read as follows:

Authority: 33 U.S.C. 1231; 50 U.S.C. 191, 33 CFR 1.05-1(g), 6.04-1, 6.04-6, 160.5; 49 CFR 1.46.

2. Add § 165.T11-067 to read as follows:

§ 165.T11-067 Safety Zone; Offshore Grand Prix powerboat race, Long Beach, California.

(a) *Location.* The following area constitutes a safety zone within the navigable waters of Long Beach Outer Harbor around the oil islands: commencing at latitude 33°45'46" N, longitude 118°10'11" W; thence to 33°44'48" N, 118°11'03" W; thence to 33°43'50" N, 118°10'08" W; thence to 33°43'50" N, 118°08'06" W; thence to 33°44'56" N, 118°07'40" W; thence returning westerly along the shore to the point of origin. [NAD 1983]

(b) *Effective period.* This section is effective from 12 p.m. to 3 p.m. (PDT) on June 02, 2002. If the event concludes prior to the scheduled termination time, the Captain of the Port will cease enforcement of the safety zone and will announce that fact via broadcast notice to mariners.

(c) *Regulations.* In accordance with the general regulations in § 165.23 of this part, entry into, transit through or anchoring within the safety zone is prohibited unless authorized by the Captain of the Port Los Angeles-Long Beach, California or his designated representative.

Dated: May 22, 2002.

G.P. Cummings,

Commander, U.S. Coast Guard, Alternate Captain of the Port, Los Angeles-Long Beach, California.

[FR Doc. 02-13513 Filed 5-29-02; 8:45 am]

BILLING CODE 4910-15-P

DEPARTMENT OF VETERANS AFFAIRS

38 CFR Part 4

RIN 2900-AK66

Special Monthly Compensation for Women Veterans Who Lose a Breast as a Result of a Service-Connected Disability; Correction

AGENCY: Department of Veterans Affairs.
ACTION: Final rule; correction.

SUMMARY: In a document published in the *Federal Register* on February 14, 2002 (67 FR 6872), we amended VA's adjudication regulations to provide for payment of special monthly compensation for a woman veteran who loses one or both breasts as a result of service-connected disability. The document contains typographical errors

in the "Note" at the end of diagnostic code 7626 in § 4.116 "Schedule or ratings—gynecological conditions and disorders of the breast." This document corrects those typographical errors.

DATES: *Effective Date:* This correction is effective March 18, 2002.

FOR FURTHER INFORMATION CONTACT:

Caroll McBrine, M.D., Consultant, Policy and Regulations Staff (211A), Compensation and Pension, Veterans Benefits Administration, Department of Veterans Affairs, 810 Vermont Avenue, NW., Washington, DC 20420, (202) 273-7230.

SUPPLEMENTARY INFORMATION: In rule FR Doc. 02-3677, published on February 14, 2002 (67 FR 6872), make the following correction:

PART 4—[CORRECTED]

§ 4.116 [Corrected]

On page 6874, in column 1, in § 4.116, in the entry for diagnostic code 7626, immediately following "Note: For VA purposes:" remove the horizontal rule and remove the superscript designations 1 through 4 and add, in their place, paragraph designations (1) through (4), respectively.

Approved: May 21, 2002.

Roland Halstead,

Acting Director, Office of Regulatory Law.

[FR Doc. 02-13285 Filed 5-29-02; 8:45 am]

BILLING CODE 8320-01-P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018-AE04

Endangered and Threatened Wildlife and Plants; Reclassification of Certain Vicuña Populations From Endangered to Threatened With a Special Rule

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), are reclassifying the vicuña *Vicugna vicugna* in Argentina, Bolivia, Chile, and Peru from endangered to threatened under the U.S. Endangered Species Act (Act or ESA) of 1973, as amended. The recently introduced population of Ecuador,

treated as a distinct population segment under the Act in accordance with the Service's Policy on Distinct Vertebrate Population Segments (61 FR 4722), will remain listed as endangered.

We also establish a special rule (under Section 4(d) of the Act) allowing the importation into the United States of legal fiber and legal products produced with fiber from vicuña populations listed as threatened under the Act and in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), if certain conditions are satisfied by the exporting (*i.e.*, range country) or re-exporting country. Importation into the United States of legal fiber and legal products made from fiber that originated from threatened, Appendix II vicuña populations will require valid CITES export permits from the country of origin and also the country of re-export, when applicable. We are aligning U.S. importation practices with those approved by the CITES Parties, in order to facilitate effective conservation of the vicuña in range countries, and the enforcement and management efforts of those countries.

This rule *requests* range countries to submit a country-wide Management Plan prior to exporting to the United States. The special rule *requires* range countries exporting specimens of vicuña to the United States for commercial purposes to provide the Service with an annual report. The Service will conduct a review every two years, using information in the annual reports and other available information, to determine whether range country management programs are effectively achieving conservation benefits for the vicuña. Failure to submit an annual report could result in a restriction or suspension of trade. Based on the results of its review, the Service may administratively restrict or suspend trade from a range country if it determines that the conservation or management status of the threatened vicuña population in that range country has changed, such that continued recovery of that population may be compromised.

If, at any time after the effective date of the special rule, the conservation or management status of threatened vicuña populations changes in one or more range countries such that those vicuña populations are not continuing to recover, the potential exists to administratively suspend the approval of imports under the special rule.

EFFECTIVE DATE: This final rule is effective on July 1, 2002. The special

rule in 50 CFR 17.40(m) is effective on July 1, 2002.

ADDRESSES: The complete file for this rule is available for public inspection by appointment, from 8 a.m. to 4 p.m., Monday through Friday, in Room 750, 4401 North Fairfax Drive, Arlington, Virginia.

FOR FURTHER INFORMATION CONTACT: Dr. Kurt A. Johnson, Division of Scientific Authority, U. S. Fish and Wildlife Service, Mail Stop ARLSQ-750, Washington, DC 20240 [phone: 703-358-1708; fax: 703-358-2276; e-mail: fw9ia_dsa@fws.gov].

SUPPLEMENTARY INFORMATION:

Note: Portions of the original proposed rule and proposed special rule were re-written to conform to the new Federal policy on the use of "plain English" in Federal documents. However, the original intent of the text remains the same. Some text in the proposed rule has also been amended in this final rule in response to comments submitted by the public (see "Comments Received" below), and additional technical information that we have gathered since publication of the proposed rule.

Background

The vicuña (*Vicugna vicugna*) was listed as endangered under the U.S. Endangered Species Act on June 2, 1970. Among other things, that listing prohibited U.S. interstate and international commerce in vicuña products. The vicuña was included in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) on July 1, 1975 (the date of entry into force of CITES), which thereby prohibited all primarily commercial, international trade in vicuña products. Certain populations of vicuña in Chile and Peru were transferred to CITES Appendix II at the sixth meeting of the Conference of the Parties to CITES (COP6) in 1987. The remaining vicuña populations of Peru were transferred to Appendix II in 1994 at the ninth meeting of the Conference of the Parties (COP9), and certain populations in Argentina and Bolivia were transferred to Appendix II in 1997 at the tenth meeting of the Conference of the Parties (COP10). These transfers to Appendix II, reflecting improved conservation status for the specified vicuña populations, allowed the resumption of commercial, international trade—under carefully controlled conditions—of vicuña fiber and products manufactured from vicuña fiber. This international trade, however, is still excluded from the United States, because of the species' listing as endangered under the ESA, a stricter

domestic measure than CITES. The United States supported the above transfers of the specified vicuña populations to Appendix II, based on information contained in the supporting statements for the various CITES amendment proposals. The relevant CITES amendment proposals and their supporting statements are available on request from the Division of Scientific Authority (see **ADDRESSES** Section).

The vicuña produces a fiber of very fine texture (about 12 microns in diameter) that can be woven into luxury garments. Raw fiber from vicuña has been legally auctioned at up to US \$500 per kg (US \$200 per lb) and an average vicuña fleece provides about 0.2 kg (0.5 lbs) of fiber. Individual vicuña thus have a fleece that is worth many times that of a sheep and several times that of other species in the family Camelidae, such as alpacas and llamas. This high value, in a resource-poor area, can represent both a threat to the species and an opportunity for economic development and sustainable management. The threat comes from illegal hunting if protection and incentives for management are poor. The opportunity exists if proceeds from the sale of vicuña fiber from live-shorn animals are substantially used to conserve and protect vicuña by enhancing the economic well-being of native people in the Andean highlands, and by linking that improved economic status directly to conservation and sustainable use of the vicuña, and recovery of vicuña populations.

We received a petition on October 5, 1995, from the President of the International Vicuña Consortium, an association of companies in the fiber industry, requesting that the vicuña be removed from the U.S. list of endangered and threatened wildlife, or reclassified with a special rule that would allow for commercial trade that would benefit the conservation of the species. The petitioners cited the following reasons for the requested action: (1) Improved management of vicuña populations, (2) improved enforcement and trade controls, and (3) recognition that regulated commerce could be beneficial to both rural communities that share landscapes with vicuñas and the vicuñas themselves. The petitioners provided limited supporting documentation.

Our 90-day finding on whether the petition presents substantial information and our 12-month finding on whether the petitioned action is warranted were subsumed within the proposed rule, which was published in the **Federal Register** on September 8, 1999 (64 FR 48743). In the proposed

rule we found that: (1) Reclassification of the vicuña from endangered to threatened was warranted for all range countries except Ecuador; and (2) that a special rule (also referred to as a 4(d) rule) was warranted for all threatened, Appendix II populations, with the exception of the Appendix II "semi-captive" populations of Catamarca, Jujuy, La Rioja, Salta, and San Juan Provinces in Argentina, which were specifically excluded until such time as their conservation benefit for wild vicuña was demonstrated adequately.

We based our findings and the proposed rule on information provided in the petition, the supporting statements for the aforementioned CITES amendment proposals, other published literature and articles, and the Service's status review of the vicuña. This status review included interviews with knowledgeable persons from the vicuña range countries, responses to questions asked of authorities in each range country, and a 1997 on-site assessment of vicuña populations and management in Argentina, Bolivia, Chile and Peru, which was prepared by a contractor (Dr. Henry L. Short) working for the National Fish and Wildlife Foundation (NFWF). The Service contracted with NFWF to evaluate the conservation and management status of vicuña populations, and to make recommendations about the species' status. All personal communications and question responses cited in the text of the final rule were received by Dr. Short, unless otherwise noted (see "References Cited" section).

Through information obtained during the public comment period, we have learned that the "semi-captive" populations of Argentina are actually populations of semi-domestic vicuña that are maintained in fully-fenced enclosures of a few hectares (ha). Peru also has "semi-captive" populations, but they differ from those of Argentina in being populations of wild vicuña maintained in fully-fenced enclosures of up to 1,000 ha. Chile may soon begin establishing "semi-captive" populations similar to those in Argentina, but perhaps in slightly larger enclosures. Hereafter in this document we refer to all of these fenced populations as "captive" populations or "captive" herds, and to this type of management as a "captive" management system, operation, or program. This will distinguish them from "wild, free-ranging" populations or herds, and "wild, free-ranging" management systems, operations, or programs.

Comments Received

The formal public comment period on the proposed rule closed on December 7, 1999. Much additional information was contained in the 85 comments we received during the public comment period. Comments pertaining exclusively or primarily to vicuña in a single range country are summarized below under each country. Comments of a more general nature or pertaining to vicuña in more than one range country are summarized immediately below.

Comment: The Cashmere and Camel Hair Manufacturers Institute (Mr. Karl Spilhaus), Loro Piana, N.Y. (Mr. Pier L. Guerci), Northern Textile Association (Mr. Karl Spilhaus), and Warren Corporation (Mr. Roberto Modica), wrote in support of reclassification of the vicuña populations of Argentina, Bolivia, Chile, and Peru from endangered to threatened. Their principal argument is that opening of the U.S. market will create a powerful economic incentive for sustainable management and conservation of vicuña populations in the areas covered by the proposed reclassification.

Response: While we agree that opening of the U.S. market may create an economic incentive, we are also aware that such incentive can be either a positive force or a negative force for conservation of vicuña in the wild. The ESA requires that we ensure, to the best of our ability, that it be a positive force for conservation. We agree that the vicuña can and should be used sustainably. Any decision on downlisting a species from endangered to threatened must be primarily based on the biological status of the species in the wild, and the five listing factors in the Act.

Comment: Dr. Henry L. Short and Mr. Joseph Ramos provided specific comments on various aspects of the proposed rule and proposed special rule. Dr. Short stated that the Service erred in considering vicuña populations in Argentina, Bolivia, Chile, and Peru to be threatened until they are fully recovered, because we did not define "fully recovered population" and any range state should have the right to determine the population level that they wish to achieve and sustain. Dr. Short also objected to excluding the captive populations of Argentina from the special rule; he believes that the captive management operations are advantageous to wild vicuña populations. Finally, Dr. Short felt that the Service should exercise restraint when demanding information from and making management recommendations to range countries. The Service should

only request information that is necessary for making a determination under the ESA. Most of Mr. Ramos's comments were similar to those of Dr. Short, but he also commented on protection and management of the vicuña, and about possible disease transmission.

Response: We agree with Dr. Short and Mr. Ramos that we did not define "fully recovered population." However, if any of the range countries have set recovery goals for vicuña populations, we are not aware of it, nor were any such recovery goals provided to us during the comment period. Our use of the term "fully recovered" was meant in the context of ESA standards for determining if a species is threatened or endangered, not in the context of its recovery to historical population levels or its satisfying range country recovery goals. Although any range state has the right to determine the population level they wish to achieve and sustain, we have an obligation under the ESA to determine if that population qualifies for threatened or endangered status in terms of the five ESA listing factors.

Section 4(d) of the Act requires that a prohibited activity, such as the import of fiber or fiber products from a threatened vicuña population, have a demonstrable conservation benefit before it is allowed under a special rule. When we published the proposed rule (reclassification) and proposed special rule, we felt that available information was inadequate to determine that the captive vicuña populations in Argentina were contributing to conservation of wild vicuña populations. Therefore, these populations were excluded from the proposed special rule, but with an appeal for additional information that would assist us in making our final determination. Likewise, we are always trying to obtain the best information available in regard to the five listing factors specified in the Act. That is why the proposed rule included a request for any additional information that range countries could provide on habitat, vicuña population numbers and utilization, disease and predation, existing regulatory mechanisms, and other factors. We base our decision here on the best available scientific information. We note that detailed information has been received from South American biologists with extensive expertise on this species. Based on this additional information, captive populations in Argentina have been included in the final rule.

Comment: Dr. Paul J. Taylor supported the proposed reclassification, but had a number of specific comments. Dr. Taylor agreed with the previous two

commenters in stating that the Service had erred in excluding the captive vicuña populations of Argentina. He believes the Service has adopted unreasonable criteria in judging Argentina's vicuña policies. He also believes it is unreasonable to expect that the conservation benefits of Argentina's management system must be proved. Dr. Taylor feels that vicuña are "not as wild as most wild species," and believes that the time is coming when commercial vicuña ranching in many countries of the world will co-exist with effective continuing conservation of wild vicuña populations in their historic range. Finally, Dr. Taylor discussed the possibilities of embryo transfer from vicuña into llamas as a tool that could dramatically increase the number of vicuña in managed populations. He feels that frozen vicuña embryos can and should provide a safe way of creating vicuña herds in parts of the world where they have never existed.

Response: We believe that we have adopted reasonable criteria in evaluating the status of vicuña populations. We are not endorsing range countries' policies, but, rather, we are evaluating the status of populations in those countries. The ESA requires that a special rule be promulgated only if it is "necessary and advisable for the conservation of the species." Thus, a special rule that allows international commercial trade must have demonstrated conservation benefits; it is not sufficient for a special rule to be neutral in terms of its impact on conservation or to only have potential benefits. We consider the vicuña to be a wild species in every sense. We are aware that the species was domesticated in the past, resulting in the domestic alpaca (Jane Wheeler, IVITA, Facultad de Medicina Veterinaria, Universidad Nacional Mayor de San Marcos, Lima, Peru, pers. comm. with K. Johnson, Division of Scientific Authority (DSA), 2000), and does not need to be domesticated again. We do not support or advocate the development of commercial ranching operations for vicuña, especially ranching operations outside the species' natural range. We find that such operations would undermine the conservation efforts of range countries to sustainably utilize this species. Likewise, the special rule does not provide for the importation without an ESA permit of live vicuña, or of embryos, gametes, or tissue samples of vicuña. We do not intend to encourage such imports as a means for establishing populations outside the species' natural range, because of our concern that such populations could

undermine range country conservation efforts and preclude any benefits to local indigenous communities. For those reasons, and the fact that they are still in Appendix I of CITES, the special rule precludes imports without a threatened species permit for live vicuña, and for embryos, gametes, and tissue samples of vicuña.

Comment: Dr. Bill Jordan of Care for the Wild wrote that trying to farm vicuña cannot succeed because they do not thrive at a lower altitude.

Response: Dr. Jordan's comment is duly noted.

Comments Related to Argentina

Approximately 60 comments received in response to the proposed rule pertained exclusively or primarily to vicuña in Argentina.

Comment: The Government of Argentina (Victoria Lichtschein, Directora de Fauna y Flora Silvestres, Secretaría de Recursos Naturales y Desarrollo Sustentable) expressed the view that the draft proposed rule goes beyond the provisions of CITES for species included in Appendix I. It is not a presently accepted condition for the transfer of a species from Appendix I to II to demonstrate that such transfer will benefit the wild populations of that species. Rather, it must be demonstrated that the proposed use will not harm the wild species. Argentina noted that it would be practically impossible to demonstrate that breeding operations in Europe or the United States have any benefit for the wild populations of the species. Argentina also expressed the opinion that it would be virtually impossible, due to cost and complexity of the task, to determine if decreases in grazing by domestic livestock were having a beneficial effect on wild vicuña populations. Argentina is also implementing an Action Plan for the Fight Against Desertification, and these activities should be kept in mind when evaluating Argentina's efforts to improve the habitat of the vicuña. Argentina stated that, in general terms, the utilization of the species and the high value of the products that may be obtained from it no doubt constitute an incentive for the species' conservation. This concept, which is the basis of sustainable utilization, may be demonstrated reliably only through monitoring the wild populations, which are plainly on the increase.

Response: We appreciate Argentina's detailed commentary on our proposed rule, but we must emphasize that the proposal involves the vicuña's listing under the ESA and not CITES. An endangered listing under the ESA is not equivalent to an Appendix I listing

under CITES, nor is a threatened listing under the ESA equivalent to a CITES Appendix II listing. The U.S. List of Endangered and Threatened Wildlife is not equivalent to CITES Appendices I and II. CITES is an international convention, while the ESA is domestic legislation. Each has its own set of implementing regulations within the United States, as well as criteria for listing. The ESA has many provisions that are stricter than CITES, thus it is considered a "stricter domestic measure" allowable under provisions of Article XIV of CITES. Threatened species are generally covered by all prohibitions applicable to endangered species under section 4(d) of the Act (see discussion in "Available Conservation Measures" section). We may promulgate special rules if the activities allowed therein are deemed necessary and advisable to provide for the conservation of the species. Furthermore, under CITES, the criteria for transferring species from Appendix I to II require far more information than a finding of non-detriment. The non-detriment finding is required for export of CITES Appendix II species; the listing criteria are more detailed (and can be found in CITES Resolution Conf. 9.24).

We do not believe that the information we requested to address conservation is too difficult or too costly to obtain. In the proposed rule and other correspondence, we have specifically mentioned a number of possible indicators of conservation benefit, including: (a) A reduction in poaching of wild vicuña in areas with captive vicuña populations; (b) improvement in habitat conditions as a result of decreased domestic livestock numbers in areas with captive populations; (c) documented decreases in the number of domestic livestock in the immediate vicinity of captive populations; and (d) whether some of the funds generated by the sale of fiber from captive vicuñas are allocated to conservation programs for wild vicuñas. Any of these indicators could be useful in demonstrating consistency with the conservation purposes of the ESA. Some of the indicators we have mentioned are basic, and the relevant information could be obtained with minimal effort.

We have considered Argentina's anti-desertification efforts in development of the final rule.

Comment: The Comisión Regional de las Provincias Vicuñeras provided five specific comments on the proposed rule and proposed special rule. First, the Comisión stated, captive management diminishes poaching pressure for fiber, and could meet the demand for fiber for craft use for an important sector of the

population of the vicuña provinces. The vicuña provinces, which have a great craft tradition, see captive management as an important alternative for obtaining fiber that can later be exported to a country where demand is high, such as the United States. Captive management allows the majority of the wild vicuña population to remain in a wild state, constituting a large genetic pool and permitting normal evolution of the species. Second, most wild vicuña populations exist in protected areas or in areas of low human population density. The implementation of the relevant regulations is accomplished by provincial wildlife authorities, provincial and national protected areas agencies, and the security forces of the National Gendarmes. Although, in the 1997 CITES proposal the national population of vicuñas was estimated to be 32,000, the latest census has estimated a population of 50,000 wild vicuñas. Third, the intent of the management system is to get local residents to change from introduced domestic ruminants to vicuña. Fourth, the faunal legislation of each province assures the protection of the vicuña, and generates special funds in order to achieve the objectives of conserving fauna in general and the vicuña in particular. Among the national and provincial protected areas for vicuña, there are three Biosphere Reserves in three separate provinces.

Response: We appreciate the comments from the Regional Commission of Vicuña Provinces. We do not understand how captive herds can meet the demand for vicuña fiber for local craft use. We understand that the fiber produced by captive vicuña populations in Argentina is sold to a single company based in Buenos Aires; the fiber is not retained locally and does not satisfy local craft demand. Thus, local demand for fiber apparently still exists.

We appreciate that local authorities are implementing laws and regulations to the best of their ability, and that the National Gendarmes have succeeded in reducing poaching of wild vicuña. We question the accuracy of the total population estimate of 50,000, considering that certain vicuña populations have reportedly declined substantially in the last few years due to drought (Dr. A. Canedi *in litt.* to FWS 1999). We have not seen any reports that would corroborate this population estimate on the basis of a scientifically-sound survey. We believe it unlikely that captive vicuña management will replace domestic livestock management on the Puna, at least in the near future. We understand that, at present, only

about 20 individual ranchers have captive herds established with vicuña from CEA INTA at Abra Pampa (see below). Apparently there are not enough captive vicuña at Abra Pampa to establish many more captive herds at the present time.

Comment: Dr. Gustavo Rebuffi, Director of the Campo Experimental de Altura (CEA) of the Instituto Nacional de Tecnología Agropecuaria (INTA) (High-Elevation Experiment Station of the National Institute of Agricultural Technology) located at Abra Pampa in Jujuy Province, wrote in support of the captive management system developed and implemented by the CEA (hereafter referred to as the INTA captive management system, program, or model; this program is described in greater detail in the "Argentina: Population Utilization" section). Dr. Rebuffi provided specific comments on the proposal, and attached a summary of his doctoral dissertation "Characterization of Vicuña Wool Production in the Argentine High Plateau." According to Dr. Rebuffi, there are no demonstrated adverse effects associated with captive management. Rather, the benefits of captive management are enormous for the conservation of wild vicuñas, among many reasons, because the market prefers to be supplied with legal wool. Dr. Rebuffi stated that poaching in Argentina has almost disappeared since the captive management program was initiated, and the wild population now numbers close to 50,000. The National Gendarmes has entered into an agreement to cooperate in the implementation of INTA's captive management program, and the Vicuña Convention recognizes captive management as a valid option for the species. Dr. Rebuffi said that there are no genetic or disease problems associated with captive management, and that vicuñas in captivity have their health guaranteed by good veterinary care. Dr. Rebuffi also cited economic benefits of the captive management program for those persons with captive herds. He believes that the INTA captive management program is not more widespread because there are not enough vicuña in captivity, otherwise it would displace the domestic livestock alternative over time.

We also received comments in support of the INTA captive management program from a number of individuals, including: 14 current or former employees of CEA INTA; 6 other employees of INTA; 12 agronomists, animal production agents, economists, rural extension agents, or veterinarians in northwestern Argentina (Salta and Jujuy Provinces) some of whom are

possibly INTA employees; 8 individuals who have captive vicuña populations provided by CEA INTA; one rancher; one former director of natural resources of Salta Province; one zoo director; one professor at Catholic University of Argentina; one reproductive technologist; one agricultural engineer; one "advisor"; and one foundation representative. These commenters primarily emphasized the economic benefits that would accrue to poor residents of the Argentine Puna from allowing the import of vicuña fiber into the United States. Many commenters mentioned that captive vicuña were maintained in healthy condition, and that there was little if any mortality associated with fiber harvest. Many commenters also noted that captive management operations reduce poaching pressure on wild populations, and that this alternative could lower the numbers of domestic livestock on the Puna rangelands.

Response: Clearly, a tremendous amount of work has gone into development of the INTA program. While we appreciate and support the need to address the socioeconomic plight of poor residents of the Argentine Puna, the ESA is principally concerned with the conservation of threatened and endangered species in the wild. We understand that the INTA captive management system has been developed primarily in the context of a rural development program for small producers in the Puna of Salta and Jujuy, and, therefore, places great emphasis on the economic betterment of the local people. This is a vital concern. However, in relation to listings under the ESA, economic arguments are only important in the context of providing direct or indirect conservation benefits for listed species.

We note that the INTA captive management model (i.e., the development of individual captive herds) is based on the socio-economic system of the Argentine Puna. However, we also understand that only around 20 individual ranchers have captive herds, so the number of people benefitting from this program is small in comparison to the total number of local Puna residents. The number of captive herds is not likely to increase substantially in the near future. We believe that one cornerstone of successful sustainable use programs is sustainable economic benefits for a broad spectrum of local indigenous people, not just a few.

We recognize that the majority of captive populations are probably well maintained and in good health, and that mortality associated with shearing is

probably low. However, we are aware of one instance where most of the animals in a captive population died because the animals were sheared in winter and developed pneumonia soon thereafter. We continue to welcome documentation that captive populations reduce poaching pressure on wild populations.

Comment: Dr. Arturo Canedi of the Centro de Estudios & Investigaciones de Uso Sustentable of the Universidad Nacional de Jujuy wrote to support the captive management of vicuña in Argentina. He stated that the vicuña population of Olaroz-Cauchari Reserve in Jujuy Province has exhibited a logistic growth curve since monitoring began in 1987, and now exceeds the carrying capacity of the environment. That, added to a drought in 1996–1998, has produced a grave decline of the population (from 6,500 in 1995 to 4,800 in 1998). This situation has been repeated in other provinces. Drought is the environmental variable that has the greatest impact on recovering vicuña populations. Dr. Canedi stated that rational utilization of the species requires establishment of a culling process whereby live animals can be captured to repopulate other potential areas, and implementation of systems of captive management. These require creation of an infrastructure adequate to provide drinking water and increase the carrying capacity of the corrals in order to mitigate the effects of drought.

Response: We appreciate Dr. Canedi's new information on population declines in the Olaroz-Cauchari Reserve in Jujuy Province resulting from drought. Although we agree that management in a sustainable utilization program may involve the translocation of vicuña from one location to another, we believe that translocations should be based on previously-developed protocols that consider the possible population, genetic, and disease consequences of translocation. We are not aware that Argentina, or any other vicuña range country, has developed such protocols. The provision of drinking water and improvement of range conditions within corrals would entail extra costs, and takes management one step further away from natural conditions.

Comment: Pelama Chubut (Mr. Carlos Leers), an Argentine company dedicated to commercialization of fiber from South American camelids, wrote in support of including the INTA captive management program in the special rule. The company has invested significant funds to finance "Productores Minifundistas" who do not have funds to invest and who cannot get credit from a bank or financial institution. The company has

decided to have a stake in this undertaking, associating itself with producers to obtain the fiber, and guaranteeing the producers a competitive price at the international level.

Response: We understand that this company has invested in the captive management operations in northwest Argentina (by providing loans to individual ranchers to purchase fencing material for the vicuña corrals), and therefore has an economic interest in the success of this program. We also understand that the loans are repaid through fiber sales to the company. Although such an arrangement may assure a competitive price to the ranchers, it may also put them at a disadvantage by preventing them from seeking or obtaining the highest possible economic return from their vicuña fiber. It does not appear that the company contributes any proceeds from sales of vicuña fiber or fiber products to conservation programs for wild vicuña.

Comment: Dr. Bibiana Vila of Profauna, Conicet, Universidad Nacional de Lujan, provided a number of specific comments regarding vicuña populations and conservation in Argentina. She expressed opposition to the captive management system of Argentina, principally because it alters the process of natural selection in vicuña, and because it does not provide the claimed social and economic benefits to campesino (peasant) communities. She provided a paper she presented at a camelid conference in Cuzco, Peru (Vila 1999) arguing that "wildness" in vicuña is a characteristic essential to the species' conservation and management. Lilian Villalba, a Bolivian member of the Grupo Especialista en Camelidos Sudamericanos (GECS—South American Camelid Specialist Group) of the World Conservation Union/Species Survival Commission (IUCN/SSC) expressed concern over the captive management system in Argentina for biological and socioeconomic reasons. She stated that, on a biological basis, captive management does not guarantee vicuña conservation, and may result in changes to captive populations through artificial selection and intensive management. Also, from a socioeconomic standpoint, captive populations require a major investment that communities cannot afford, and benefits a reduced number of people. Finally, she opined that captive management focuses more on economic gain than on conservation of the species in the wild, and allows private companies to become involved to the detriment of local communities. In this

way captive management may foster increased poaching rather than reduce it.

Response: We appreciate these comments from South American scientists with significant expertise in this species. We agree that it is not desirable to re-domesticate the vicuña through artificial selection in captive management systems. We do not have enough information to determine the exact financial return realized by individual ranchers participating in the INTA captive management program, but it appears that most or all individual ranchers have taken loans from, and, therefore, are indebted to the company that also purchases their fiber. We understand that only around 20 individual ranchers are participating in the INTA program, so the number of people realizing a benefit from this program is very small in comparison to the total number of Puna residents. The number of captive herds is not likely to increase substantially in the near future. However, there is another captive management program—the Criadero Coquena—El Refugio de las Vicuñas of the Asociación Civil de Artesanos y Productores "San Pedro Nolasco de los Molinos"—that appears to be benefitting an entire campesino community. This program is discussed immediately below, and in the "Argentina: Population Utilization" section. We believe that management of wild vicuña populations is the best approach to ensure ecological and equitable socioeconomic sustainability.

Comment: Dr. Silvia Puig, writing on behalf of the Grupo Especialista en Camelidos Sudamericanos (GECS), stated that GECS regards management of wild, free-ranging vicuña populations (where wild vicuña are herded, shorn, and released in their natural habitats) as more advisable than captive management, because it implies a minor modification in natural conditions of both the species and environment, and gives greater guarantee of both sustainability and local reinvestment of revenues for social and ecological betterment. However, captive management could be compatible with conservation of vicuña populations and natural habitats if four conditions are met (see "Argentina: Population Utilization" section). According to Dr. Puig, technical evaluations to determine whether these four conditions have been met are still pending for most of the captive management operations in Argentina. Dr. Puig stated that there is one captive management operation that appears to have begun fulfilling these criteria—the Asociación Civil de Artesanos y Productores "San Pedro

Nolasco de los Molinos" (Los Molinos). Dr. Puig noted that, among other things, Los Molinos has a structure wherein its participants share tasks and benefits of using the vicuña, has established a captive management operation (Criadero Coquena—El Refugio de las Vicuñas) in an area not immediately within occupied vicuña habitat, has conducted a vicuña population survey in the Molinos Department of Salta Province, and is interested in further developing and implementing a conservation program for the wild vicuña.

Response: We appreciate the comments from Dr. Puig on behalf of GECS, the leading organization of South American camelid specialists. We agree that programs satisfying the conditions mentioned by Dr. Puig are more likely to have a demonstrable conservation benefit, and a direct link between conservation and equitable economic benefits to local human populations, which, in our opinion, is a requisite of sustainable utilization. We agree that sustainable management of wild vicuña populations offers the best prospects for conservation and socioeconomic benefit to local populations.

Comment: The Asociación Civil de Artesanos y Productores "San Pedro Nolasco de los Molinos" (Los Molinos) provided additional information on its history and its captive management operation (Criadero Coquena—El Refugio de las Vicuñas). Significant points include: Los Molinos obtained its vicuña from CEA INTA in 1994, but does not rely on CEA INTA for technical support. Los Molinos has not accepted any financial support for developing its operation, and does not sell the raw fiber but uses the fiber to produce a finished product on site. Los Molinos has multiple participants; and is based on conservation of wild populations.

Response: Los Molinos' captive management program is based on a different model than the INTA program. The Los Molinos model includes: a component of research and conservation of wild vicuñas; an effort to "add value" to the raw fiber by producing traditional crafts, thereby increasing the financial return to the local community; and economic benefits that accrue to multiple persons rather than an individual rancher. As such, this program appears to have a demonstrable conservation benefit, and a direct link between conservation and equitable economic benefit to local peoples.

Comment: The Asociación Criadores de Camelidos de Argentina (ACCA—Argentine Association of Camelid Raisers), the Programa Regional de Apoyo al Desarrollo de Camelidos Sudamericanos (Regional Program to

Support the Development of South American Camelids), and the Fondo Internacional Desarrollo Agrícola (FIDA—International Fund for Agricultural Development) all wrote in support of Los Molinos and its captive management operation.

Response: These responses indicate that Los Molinos' program has financial and technical support of a number of regional organizations.

Comments Related to Bolivia

Two comments pertained exclusively to vicuña in Bolivia.

Comment: The Government of Bolivia (Mario Baudoin Weeks, Director General de Biodiversidad, Ministerio de Desarrollo Sostenible y Planificación) agreed with the proposal to reclassify all populations listed as endangered (Appendix I) to threatened (Appendix II) under the ESA. Bolivia noted that they intend to manage their vicuña as wild populations.

Response: We appreciate Bolivia's comments, and agree that Bolivia's population should be classified as threatened. We support the Government of Bolivia's intention to manage its vicuña as wild, free-ranging populations.

Comments Related to Chile

Three comments pertained exclusively or primarily to vicuña in Chile.

Comment: The Director de Medio Ambiente of Ministerio de Relaciones Exteriores de Chile (Rolando Stein Brygin) commented on several aspects of the proposed rule and proposed special rule. He stated that prohibiting the entry of products from animals maintained in semi-captivity will restrict management and commercialization which can be carried out autonomously by the countries affected by the proposal. The signatory countries of the Vicuña Convention have already stated and re-affirmed that semi-captive management is a valid option for managing the species. The Director further stated that Chile has a solid and substantial system for control and protection of wild fauna, and that the present Hunting Law provides the Government with necessary tools and mechanisms for control and administration of sustainable management programs for the species and/or the establishment of breeding operations, so long as hunting the vicuña is prohibited and its capture is strictly regulated. He also noted that about 81 percent of vicuña in Chile are found within protected areas, and that only about 3 percent of the vicuña in the First Region of Chile will be included in

the present project on sustainable use. He does not believe that Chile, either now or in the future, will have the problem of overusing the species, since utilization will not be centered exclusively on wild specimens, but also on specimens maintained in captivity. He noted that there have been a number of chromosomal and DNA studies on the taxonomic differences between the two subspecies.

Response: We appreciate Chile's comments. We continue to have concerns about captive management systems for vicuña, because the conservation value and socioeconomic benefits of captive management have yet to be demonstrated over the long term. These concerns are discussed in greater detail in the "Chile: Population Utilization" and "Description of the Special Rule" sections that follow. With regard to the threats posed by overutilization and inadequacy of existing regulatory mechanisms, we recognize that Chile has established significant protected areas and put in place substantial regulatory mechanisms to manage the species and to control illegal harvest. For that reason we do not believe that these factors endanger vicuña populations in Chile. However, we believe that regulatory mechanisms for harvest and commercialization as part of a sustainable use program must be tested and demonstrated to be adequate before this factor can be discounted as a potential threat to the species.

Since publication of the proposed rule, we have received and reviewed additional information regarding the issue of subspecies of the vicuña. This issue is discussed in greater detail in the introductory paragraphs of the "Summary of Factors Affecting the Species" section that follows.

Comment: Cristian Bonacic, a Chilean veterinarian and wildlife biologist at Oxford University who has many years of experience working on vicuña conservation and sustainable use, questioned the conservation value and economic benefits of captive vicuña management systems. He suggested that a free-ranging management system where wild vicuña are herded, shorn, and released would be the best alternative to sustainably utilize this species.

Response: We continue to have concerns over the conservation value and socioeconomic benefits of captive management systems for vicuña. These concerns are discussed in greater detail in the "Chile: Population Utilization" and "Description of the Special Rule" sections that follow. We agree that sustainable management of wild vicuña

populations offers the best prospects for long-term conservation and equitable socioeconomic benefit to local populations.

Comments Related to Ecuador

Two comments pertaining exclusively to vicuña in Ecuador were received, both from the Government of Ecuador.

Comment: According to the submission from the Executive Director of Ecuador's Ministerio del Ambiente (Danilo Silva Chiriboga), the vicuña was first introduced in Ecuador in July 1988 (not 1993 as stated in the proposed rule), and the population had increased to 1,104 individuals as of 1999. He stated that Ecuador's goal is to have a vicuña population of 3,000 after 5 years, at which time it intends to propose that its population be downlisted to Appendix II of CITES in order to commercialize fiber production. However, according to the submission from the Wildlife Department within that Ministerio del Ambiente (Sergio Lasso B.), Ecuador will require at least 10 years to obtain a population sufficiently large to harvest fiber. The Executive Director stated that retention of the vicuña population of Ecuador as endangered under the ESA would prevent its reclassification under CITES. He further stated that the status of vicuña in Ecuador is no longer in the "experimental stage." Ecuador provided us with a copy of its report to the 19th Meeting of the Technical Committee of the Vicuña Convention, entitled "Report of the Vicuña Reintroduction Project in Ecuador" (hereafter referenced as Government of Ecuador 1999) which discusses the current status of its vicuña population.

Response: We appreciate Ecuador's comments. We continue to believe that downlisting the vicuña population of Ecuador is not warranted because of its small population size (only 1,100 animals) and its relatively recent history as an introduced population. Our rationale is discussed in greater detail in the "Distinct Vertebrate Population Segment" section. However, we also note that continued retention of this population as endangered under the ESA has no bearing on its listing under CITES, because CITES and the ESA have different implementing regulations and listing criteria. If the population of Ecuador is proposed for downlisting to Appendix II at a future meeting of the Conference of the Parties to CITES, Parties may vote to adopt that proposal. Adoption of a CITES downlisting proposal would not affect the species' status under the ESA. We would evaluate any such proposal based on the

CITES listing criteria (Resolution Conf. 9.24), and not the ESA criteria.

Comment: The Vicuña Convention Resolution No. 207/99, submitted as a comment, states that the proposed rule excludes the vicuña populations of Ecuador without establishing the bases and considerations to support such restriction, demonstrating a lack of information on the status of the species in this country.

Response: We have reviewed information provided by the Government of Ecuador, including its report to the 19th Meeting of the Technical Committee of the Vicuña Convention, entitled "Report of the Vicuña Reintroduction Project in Ecuador" (Government of Ecuador 1999). We continue to believe that the vicuña population of Ecuador is properly classified as endangered, and that reclassification to threatened status is not warranted at this time (see "Distinct Vertebrate Population Segment" section).

Comments Related to Peru

Several comments pertaining exclusively or primarily to vicuña in Peru were received, including comments from the Government of Peru (Consejo Nacional de Camelidos Sudamericanos—CONACS).

Comment: CONACS (Domingo Hoces Roque) stated that vicuña must be fully and effectively used in any of the options for legal management that have been adopted by range countries, or vicuña will continue to be seen as troublesome pests that interfere with economic development. This would discourage interest in exploiting vicuña and, finally, in protecting it. Vicuña populations in "semi-captivity" in Argentina (approximately 1,000 animals) and Peru (21,301 animals in Sustainable Use Modules in 1999) represent a relatively unimportant proportion of the general vicuña population in each country (2% and 15% respectively). CONACS said that research on and changes in profitability of management options in relation to social and economic development needs may cause current management options to change over time. Therefore, the adoption of commercial restrictions is not recommended if they are based solely on one management option. In Peru, stated CONACS, the commercial exploitation of vicuña fiber, whether it comes from wild, free-ranging populations or captive populations (called Sustainable Use Modules, or SUMs, in Peru), not only generates economic income for poor rural populations, but also protects the species itself since a large part of the

income goes to financing protection systems in the field through payments to community park guards, and the purchase of radio equipment, binoculars, and firearms. With an increase in fiber value, the sustainable use of the species will be assured.

In consideration of the above, CONACS made the following recommendations. First, commerce in fiber, cloth or garments containing vicuña fiber from range countries to the United States should have no more requirements and/or restrictions than those contained in the Vicuña Convention and CITES. Whatever legal management methods that have been independently adopted by range countries should be acceptable to the United States, provided that they are in line with the principles and agreements of the Vicuña Convention and CITES. Second, each range country should be subject to the same treatment in regard to trade of vicuña products with the United States. Treating Ecuador and Argentina differently would put them at a disadvantage in relation to other Vicuña Convention countries, and would promote the resurgence of poaching and the illegal market. And, third, that vicuña fiber, textiles and/or garments entering the United States should only have to meet the following general requirements: (1) That they come from vicuña populations in Appendix II of CITES; (2) that they are of fiber sheared from live animals, or in exceptional and technically justified cases, from animals taken legally and by authorization; (3) that they bear the brand, logo, and/or weave adopted and authorized by the countries of the Vicuña Convention and CITES; and (4) that they bear the official control certificates of the countries of origin, of CITES, and of others who adopt safeguarding the species by mutual agreement.

Response: We appreciate the comments of the Government of Peru. The CONACS recommendations imply that the vicuña should be delisted from the ESA, thus removing all ESA protections and limiting restrictions to only those contained in the Vicuña Convention and CITES. Although vicuña populations are growing throughout the species' range, we believe that some populations have not recovered to the point that they are no longer threatened by one or more of the five ESA-listing factors (see "Summary of Factors Affecting the Species" section). Consequently, we continue to believe that reclassification to threatened status under the ESA is the most appropriate course of action at present (except for the population of

Ecuador). We do not agree that all management systems or all countries must be treated the same in regard to trade of vicuña products with the United States, because each vicuña range country has chosen to pursue a slightly different management system, which can impact in different ways on the recovery of the species. We continue to believe that the conservation value and economic benefit of specific vicuña management systems must be tested and demonstrated over the long term before they can be approved without restriction. We agree that imports to the United States must satisfy the four points specified by CONACS; each of these points is contained in the special rule, although they are not the only requirements contained in the special rule (see "Description of the Special Rule" section).

Comment: Dr. Edgar Sanchez of La Molina University mentioned a number of potential problems with the captive management system being implemented for Peruvian vicuña populations. First, fencing populations could prevent the movement of vicuña between metapopulations, interfering with metapopulation dynamics. Second, disease problems, ectoparasites in particular, could increase. Third, there is potential for overgrazing within the enclosures (corrals) if the carrying capacity is exceeded. Fourth, there are potential genetic problems if the initial population within each enclosure is small, and if animals are translocated from one area to another without consideration of genetic consequences. Sanchez nevertheless felt that even if all proposed enclosures (SUMs) were actually constructed, they would constitute a very small percentage (less than 5%) of the total area with vicuña in Peru, so that any problems would be limited to a small area. Thus, Sanchez felt the main problem is demonstrating the biological and economic viability of the captive management system. These two goals could be achieved with an effective monitoring program for each enclosure (SUM). Sanchez believes that the most effective results, both for conservation and production of economic benefits, would be achieved with management of wild, free-ranging populations. The most successful experiences with vicuña population management (Lucanas and San Cristobal) have involved wild, free-ranging populations. Sanchez also emphasized that Peru needs to pay special attention to the vicuñas in protected areas, to ensure that there are some places where wild populations

can exist without human interference with behavior and natural selection.

Response: Dr. Sanchez has identified a number of factors of concern with captive management systems. We agree that the main problem is demonstrating the biological and economic viability of captive management over the long term, and that the necessary information will only be obtained through an effective monitoring program for each SUM. We also agree that the most effective results, both for conservation and economic benefits, are likely to be achieved with management of wild, free-ranging populations. We agree that close attention should be paid to vicuñas in protected areas, and that vicuña would benefit from expansion of the size and number of protected areas throughout their range, and reduction of the level of competition with domestic livestock. See additional discussion in the "Peru: Population Utilization" and "Description of the Special Rule" sections.

Comment: Dr. Gabriela Lichtenstein of the Instituto Internacional de Medio Ambiente y Desarrollo—America Latina (IIED-AL) provided two reports summarizing her research on the two vicuña management systems currently being utilized in Peru (Lichtenstein et al. 1999a, Lichtenstein et al. 1999b). Her research team assessed and compared the captive management system (SUMs) with the wild, free-ranging management system from ecological, social, and economic perspectives, and conducted a feasibility analysis of both systems. Their findings strongly suggest that management of wild, free-ranging vicuña populations is a better alternative than captive management from all three perspectives—ecological, economic, and social. They suggested that the SUM project would greatly benefit if it were accompanied by solid research on ecological carrying capacities, and on the genetic, behavioral, and population impacts of enclosures on vicuñas. The captive management program includes an effort to translocate vicuña from areas with many animals to areas with few or none in order to encourage communities with few or no vicuñas to participate in the program; this program has potential negative genetic and disease consequences.

Response: Dr. Lichtenstein's research is the first to systematically examine and compare the costs and benefits of captive management versus wild, free-ranging management systems from ecological, social, and economic perspectives. Therefore, we attach great importance to her conclusions that, in Peru, management of wild, free-ranging

vicuña populations is likely a better alternative than captive management (although we recognize that these conclusions would benefit from additional research). We agree that corrals can generate a conflict between ecological and economic interests. Corrals have a very fine line between economic viability and negative ecological impact. Additional research and monitoring of SUMs is needed to assess the ecological, economic, and social viability of the program. As mentioned above, we believe that translocations should be based on a previously-developed protocol which considers the possible genetic and disease consequences of those translocations. We are not aware of such protocols in Peru.

Summary of Factors Affecting the Species

Section 4 (a)(1) of the Act and regulations implementing the listing provisions of the Act (50 CFR part 424) set forth the procedures for adding species to or deleting species from the list of endangered and threatened wildlife or changing the status of any listed species. A species shall be listed or reclassified if we determine, on the basis of the best scientific and commercial data available, that the species is endangered or threatened because of any one or a combination of the following factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) Overutilization for commercial, recreational, scientific, or educational purposes; (C) Disease or predation; (D) The inadequacy of existing regulatory mechanisms; or (E) Other natural or human-made factors affecting its continued existence.

We base this final rule on an assessment of the five listing factors in the Act, utilizing the best scientific and commercial data available including information provided in the original petition, supporting statements for the various CITES amendment proposals related to vicuña, other published literature and articles, unpublished reports, the Service's status review of vicuña, and comments received during the formal public comment period. The assessment considered the present biological status of the vicuña within the range countries of Argentina, Bolivia, Chile, and Peru. The small population that has recently been introduced into Ecuador is treated separately under the "Distinct Vertebrate Population Segment" section below. We do not propose to change that population's endangered classification under the Act.

There is no scientific consensus on the number of valid vicuña subspecies. Two subspecies have been described—*V. v. mensalis* (Molina 1782 cited in Wheeler 1995) in the northern portion of the range and *V. v. vicugna* (Thomas 1917 cited in Wheeler 1995) to the south. These putative subspecies have been described on the basis of slight differences in size and color, and the lack of a prominent chest fringe in *V. v. vicugna* (Canedi and Pasini 1996). However, many authors do not accept this division, because no clearly defined geographic separation exists between the two supposed subspecies, and because they feel that genetic and phenotypic evidence does not support differentiation. Other authors feel that available genetic and phenotypic information supports the existence of two subspecies or two geographic races of vicuña. Dr. Eduardo Palma (Departamento de Ecología, Pontificia Universidad Católica de Chile) studied a sequence of the cytochrome b gene of the vicuña, and concluded that the subspecific separation is valid (Jane Wheeler, pers. comm. with K. Johnson, DSA, 2000). He concluded that *V. v. vicugna* is the more primitive form, and *V. v. mensalis* is closely associated with the domestic alpaca. In contrast, Dr. Jane C. Wheeler (pers. comm. with K. Johnson, DSA, 2000) studied a different sequence of the cytochrome b gene and did not identify any unique genetic markers differentiating the two supposed subspecies in the animals she sampled from Argentina, Chile, and Peru. Sarno et al. (submitted) likewise did not find molecular genetic distinctions between both subspecies in the vicuña they sampled from Chile and Bolivia.

Because the vicuña's distribution is more or less continuous from north to south, without any distinct geographic or genetic barriers defining the supposed subspecies (Sarno et al. submitted), it would be inappropriate and arbitrary to draw a boundary between the two supposed subspecies for purposes of management or listing under the Act. Both Sarno et al. (submitted) and Wheeler (pers. comm. with K. Johnson, DSA, 2000) emphasize the need to manage vicuña at the population level. Therefore, the supposed subspecies are not differentiated in this rule and the term vicuña, used herein, refers to all populations of the species throughout its total range.

A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range

Vicuña are estimated to occur at varying densities on approximately 20.5 million ha of Andean highlands extending in a rather narrow strip from central Peru through Bolivia, and into northwest Argentina (between 8 and 30 degrees South latitude). The historical range of the vicuña may have been twice the present distributional area. A small, disjunct, recently-introduced population also occurs in Ecuador.

Vicuña habitats occur in the high Andean plateau region from 3,000 to 4,800 m above sea level (Hoces 1992, Torres 1992). The habitats vary climatically on both elevational and latitudinal scales but are generally arid and cold, resulting in limited vegetation cover. Principal vegetation types are halophytic vegetation associated with salt pans, grassy steppes, shrub-steppes, and wet meadow areas (vegas) (Cajal 1992). This highland habitat has been somewhat degraded by humans and their domesticated livestock, but still represents an extensive habitat for vicuña. The average vicuña population density is very low, reflecting the limited carrying capacity of the high Andean habitats as well as the fact that many vicuña habitats are understocked. The carrying capacity of vicuña habitats varies widely, consequently vicuña tend to be patchily distributed throughout their range. Protected areas, including national reserves, national parks, and provincial reserves, are scattered throughout vicuña habitat in each of the four countries considered in this final rule.

Argentina

Vicuña distribution in Argentina includes portions of the northwestern provinces of Jujuy, Salta, Catamarca, La Rioja, and San Juan at approximately 3,200 to 4,600 m elevation (Cajal 1992). Vicuña habitats in Argentina cover a surface area of about 9 to 10 million ha (Cajal 1992, Canedi 1997, pers. comm.). During the 1800's the vicuña's distribution covered over 12 million ha of Argentina (Cajal 1992).

Vicuña in Argentina occur in three ecoregions or biogeographical provinces: Prepuna, Puna, and Altoandina (S. Puig, *in litt.* to the Fish and Wildlife Service (FWS), 1999). The Prepuna Ecoregion comprises high Andean foothills, escarpments and outcroppings; the Puna Ecoregion represents higher-elevation areas of plains or tablelands between mountain ranges; and the Altoandina Ecoregion is the highest mountains. The general area

of the vicuña's distribution in Argentina is characterized by uplifted mountains surrounding extensive valleys featuring alkaline or saline flats and a rolling topography. The area is generally arid and cold (frost can occur year-round). Principal vegetation types are halophytic vegetation associated with salt pans, grassy steppes, shrub-steppes, and wet meadows (many water courses are temporary but there are occasional areas of damp ground where surface water and green vegetation in the form of rushes, grasses and a variety of succulent plants occur). Much of the thin vegetation cover over most of the Puna consists of grasses and xerophilous half-shrubs (Comisión Regional de la Vicuña 1994).

The Vicuña Provinces (Jujuy, Salta, Catamarca, La Rioja, and San Juan) have created six provincial reserves for vicuña: Laguna de los Pozuelos, Olaró-Cauchari, Los Andes, Laguna Blanca, Laguna Brava, and San Guillermo. In Jujuy Province, Los Pozuelos Reserve was created in 1980 and consists of 308,000 ha. About 15,000 ha of this Reserve have been incorporated into the UNESCO Man and Biosphere (MAB) program as a natural area of international significance. The vicuña population in the Reserve was estimated to be 2,000 in 1992 (Cajal 1992), and 2,750 in 1997 (CITES 1997a). The Olaró-Cauchari Flora and Fauna Reserve was created in 1981 to enhance vicuña populations and consists of 543,300 ha. The vicuña population in the Reserve in 1994 was estimated to be 6,500 and growing (Canedi 1995, CITES 1997a). Dr. A. Canedi (*in litt.* to FWS 1999) commented that a drought in 1996–1998 produced a substantial decline in the vicuña population of the Olaró-Cauchari Reserve, from 6,500 in 1995 to 4,800 in 1998.

In Salta Province, the Los Andes Wildlife Reserve of 1.44 million ha was created in 1980. The rigorous climate restricts the human population to very low densities. Agriculture does not exist in this area, and the ranching of cattle, sheep, goats and llamas is rudimentary. A partial census in the Reserve in 1993 counted 2,000 vicuña (CITES 1997a).

In Catamarca Province, the Laguna Blanca Wildlife Reserve was created in 1979 and enlarged in 1982 to 973,270 ha at which time it became recognized by the UNESCO MAB program as a natural area of international significance. The human population is very sparse and scattered in the Reserve. The 1993 vicuña population in Laguna Blanca Reserve was estimated to be 3,505 (CITES 1997a). Rabinovich et al. (1991) studied potential biological and

economic consequences of vicuña use in Laguna Blanca Reserve.

In La Rioja Province, the Laguna Brava Reserve for Vicuñas and the Protection of Ecosystems was created in 1980 and consists of 405,000 ha. Human habitations do not exist in the Reserve, which is contiguous with the San Guillermo Faunal Reserve in San Juan Province. The 1996 vicuña population in the Reserve was estimated to be 2,187 (CITES 1997a).

In San Juan Province, San Guillermo Faunal Reserve was created in 1972 and consists of 880,260 ha. In 1982 it became part of the UNESCO MAB program as a natural area of international significance. This was the first Provincial Reserve dedicated primarily to the protection of the vicuña. The area is devoid of human and domestic animal populations. In 1992, the vicuña population in the Reserve was estimated to be 7,100 (CITES 1997a).

In Jujuy Province, several areas have been designated as "centers of protection" for vicuña, including Vilama (97,000 ha), Santa Victoria (54,600 ha), Palca de Aparzo (55,800 ha), Caballo Muerte (18,500 ha), Casa Colorado (31,000 ha), Abra de Zenta (69,000 ha) and Serranias del Chani (158,900 ha) (CITES 1997a; V. Lichtschein, CITES Management Authority of Argentina, pers. comm. with K. Johnson, DSA, 1999). We understand that these areas are not provincial reserves at the present moment (S. Puig, pers. comm. with K. Johnson, DSA, 2000), although Vilama is within the project area for a proposed, bi-national Biosphere Reserve "Lagos del Cielo de America" which has been presented to the MAB committee but not yet approved (B. Vila, pers. comm. with K. Johnson, DSA, 2000). These areas do not have any protection staff at present (B. Vila, pers. comm. with K. Johnson, DSA, 2000).

The high-altitude experimental station (Campo Experimental de Altura or CEA) of the Instituto Nacional de Tecnología Agropecuaria (INTA) is located at Abra Pampa in Jujuy Province. This experimental station of 3,000 ha is dedicated to the development of management procedures to enhance fiber production of vicuña, assure the survival of the species, and to enhance the economic well-being of certain Puna ranchers (Rebuffi 1995).

We have little quantitative information on the extent or condition of vicuña habitats outside of protected areas in Argentina. Anecdotal information suggests that overgrazing by domestic livestock (leading to soil compaction and desertification), and

direct competition for forage with domestic livestock may be important factors limiting the growth of vicuña populations outside protected areas (CITES 1997a). Other information indicates that some competition with domestic herbivores occurs in the arid Puna where precipitation is less than 300 mm per year but that competition is not as much of a problem in the humid Puna where precipitation may exceed 500 mm per year. The Argentine Government has implemented a program to combat desertification (el Programa de Acción Nacional de Lucha contra la Desertificación), which has included projects within the vicuña's distribution in Jujuy and Salta Provinces (V. Lichtschein, CITES Management Authority of Argentina, *in litt.* to FWS, 1999).

Information presently available to the Service indicates that vicuña populations throughout Argentina are not endangered by the present or threatened destruction, modification, or curtailment of habitat or range. However, vicuña populations remain threatened by this factor throughout Argentina because of ongoing problems related to overgrazing and desertification and direct competition with domestic livestock.

Bolivia

Vicuña occur in western and southwestern Bolivia in the Departments of Cochabamba, La Paz, Oruro, Potosi, and Terija (CITES 2000a). It has been suggested (DNCB 1997, pers. comm.) that vicuña may once have ranged over 13 to 16.7 million ha in the Puna and high Andean region of Bolivia before European colonization.

Vicuña are found in a number of protected areas in Bolivia. Within the National System of Protected Areas (Sistema Nacional de Areas Protegidas, or SNAP), vicuña occur in the Ulla Ulla National Fauna Reserve (240,000 ha), Eduardo Avaroa National Andean Fauna Reserve (714,745 ha), and Sajama National Park (120,000 ha) (CITES 2000a). Other protected areas with vicuña are the Huancaroma Wildlife Refuge (8,000 ha), Llica National Park (13,100 ha), Yura National Fauna Reserve (10,000 ha), and the Incakasani-Altamachi Andean Fauna Reserve (23,300 ha) (CITES 2000a).

The Bolivian Government has established Vicuña Conservation Units (VCU) for administrative and management purposes (CNVB 1996). Eight VCUs were originally established by the Instituto Nacional de Fomento Lanero (INFOL 1985); a ninth unit was subsequently added as a result of the National Vicuña Census of 1996 (CNVB

1996). These nine VCUs encompass all of the vicuña's geographic range within Bolivia, an area of 10.1 million ha (CNVB 1996). The National Vicuña Census of 1996 recorded vicuña populations in 76 "registered census areas" totaling 3,428,356 ha within the nine VCUs (CNVB 1996). These registered census areas are distributed throughout the Bolivian highlands at an elevation range between 3,600 and 4,800 m. Thirty of these registered census areas did not have any vicuña in the previous national census (1986), indicating a significant increase in the vicuña's distribution within Bolivia over a 10-year period. Sixty-nine percent of the vicuña counted in 1996 (23,393 of 33,844) occurred in the Conservation Units of Lipez-Chichas, Mauri-Desaguadero and Ulla Ulla.

The present distribution of vicuña in Bolivia is expanding, but will likely never equal the former distribution range because of habitat changes caused by overgrazing by sheep and other domestic livestock, and human developments such as roads, villages, and cities. Vicuña generally occur on communal property lands in Bolivia. In the northern highlands vicuña share habitats mainly with alpacas; in the central highlands, with cattle, sheep, llamas, alpacas and agriculture; and in the southern highlands, with llamas (CITES 1997b). Overgrazing, especially by sheep, has reduced range carrying capacity in many areas. Bolivia's Programa Nacional de Conservacion de la Vicuña (National Program for Conservation of the Vicuña) includes several measures intended to conserve and improve vicuña habitats, including the development of vicuña management plans in communal management areas and the development of Planes de Uso del Suelo (Soil Use Plans) (CITES 2000a). Bolivia also has a program to combat desertification on the altiplano, the Programa Nacional de Lucha contra la Desertificacion y la Sequia (PRONALDES) (CITES 2000a). We have no specific information on projects included in this program.

Information presently available to us indicates that vicuña populations throughout Bolivia are not endangered by the present or threatened destruction, modification, or curtailment of habitat or range. However, vicuña populations throughout Bolivia remain threatened by this factor due to overgrazing by domestic livestock and direct competition for forage with domestic livestock.

Chile

The vicuña occurs in extreme northeastern Chile in the Regions of

Tarapaca, Antofagasta, and Atacama. Most vicuña in Chile are found within protected areas. National protected areas within the Sistema Nacional de Areas Silvestres Protegidas del Estado (SNASPE) include Lauca National Park (137,883 ha), Vicuña National Reserve (209,131 ha), and Salar de Surire Natural Monument (11,298 ha) within Parinacota Province of Tarapaca Region, and Isluga Volcano National Park (174,744 ha) in Iquique Province, Tarapaca Region. Caquena Management Zone (90,146 ha) is a special management area on private lands (Bonacic 2000b). Over 96 percent of the vicuña in Chile are found within the Caquena Management Zone, Lauca National Park, and the Vicuña National Reserve within Parinacota Province (Galaz 1997, pers. comm.). These areas have typical vicuña habitats and limited human populations.

Information presently available to the Service indicates that vicuña populations in Chile are not endangered by the present or threatened destruction, modification, or curtailment of habitat or range, but they remain threatened by this factor due to competition for forage and space with domestic livestock.

Peru

Vicuña in Peru in 1997 were estimated to occur on about 6.4 million ha throughout the 15 to 17 million ha of suitable habitat in the Peruvian highlands. Factors that could impact areas of vicuña habitat in the future include increased urbanization, successful re-introductions of vicuña into present areas of suitable but unoccupied habitat, the replacement of domestic livestock by vicuña, and large-scale watershed reclamation schemes. Vicuña are better adapted to the rigorous climatic and ecological conditions of the Puna, than are many species of domestic livestock. Overgrazing by domestic livestock remains the greatest threat to habitat conditions in the Puna (and all other ecoregions where vicuña occur).

Vicuña occur in 782,186 ha of Peruvian protected areas, including Huascarán National Park (340,000 ha), Pampa Galeras National Reserve (75,250 ha) and the Salinas and Aguada Blanca National Reserve (366,936 ha) (Hoces 1997, pers. comm.).

The Peruvian Government has embarked on a large-scale watershed reclamation and soil conservation project, the Proyecto Nacional de Manejo de Cuencas Hidrográficas y Conservación de Suelos (PRONAMACHCS), that has already negatively impacted vicuña habitats in certain areas, and has potential to

impact habitats over a much wider geographic area. PRONAMACHCS's "Sierra Verde" project impacted approximately 20,000 ha of high-elevation rangelands used by vicuña within the Salinas and Aguada Blanca National Reserve through the contour terracing of natural slopes, and planting of grasses and shrubs. The contour terracing created large ditches that vicuña would have difficulty crossing (see PRONAMACHCS Web Site <http://www.pronamachcs.gob.pe>), and conservationists are concerned that the disturbance may cause vicuña to leave the area.

Information presently available to the Service indicates that vicuña populations in Peru are not endangered by the present or threatened destruction, modification, or curtailment of habitat or range. However, vicuña populations in Peru remain threatened by this factor as a consequence of overgrazing by domestic livestock, direct competition for forage and space with domestic livestock, and large-scale watershed reclamation schemes.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Estimates suggest there may have been 1.0 to 1.5 million vicuñas in the Andean region during the Incan period. Vicuña fiber was valued by the Incas, and although utilized by the Incas, there is no evidence that the species was exploited at unsustainable levels. After the downfall of the Inca Empire, vicuñas were slaughtered in large numbers for both meat and fiber. In the 1950's populations may still have totaled 400,000, but hunting pressures and livestock competition may have reduced the total population to around 7,000 to 12,000 individuals by 1965 (Jungius 1971). Vicuña populations have begun recovering throughout the species' range during the last 30 years (Wheeler 1995). Approximately 200,000 vicuña are now estimated to occur throughout the species' Andean highland distribution (CITES 2000a). However, this recovery has not been without setbacks due to political, economic, and environmental fluctuations. For example, vicuña numbers in Peru were at a low point in 1965, grew steadily until a prolonged drought in 1978–1979 caused numbers in Pampa Galeras to decline substantially, gradually built to high levels in 1990, were significantly reduced by illegal hunting from 1991 to 1994, while there was civil unrest in the region, and have since recovered to and even exceeded 1990 levels.

The vicuña remains a potentially easily exploited resource. It has great

economic value and is a highly visible, diurnal occupant of open landscape. Some poaching for skins or subsistence hunting for meat still occurs, as does killing of vicuñas because of perceived competition with domestic livestock. These sources of mortality could have a potentially serious impact on vicuña numbers, as they have done in the past.

All signatory countries (Argentina, Bolivia, Chile, Ecuador, and Peru) to the *Convenio para la Conservación y Manejo de la Vicuña* (Convention for the Conservation and Management of the Vicuña, or the Vicuña Convention), have agreed not to export fertile specimens of vicuña. The sole exception has been exports to the Republic of Ecuador to aid in their vicuña establishment efforts. This was accomplished within the multilateral frameworks of both the Vicuña Convention and the CITES Convention. We believe it would be desirable if this prohibition were to be extended to embryos, gametes, and tissue samples not intended for bona fide scientific research related to conservation of the species in the wild, and not in support of range country programs. This would help prevent establishment of captive vicuña herds outside the natural range of the species, which would undermine the conservation efforts of the range countries.

Argentina

Population Status. In 1997, the vicuña population of Argentina was estimated to be approximately 32,000 animals, based on censuses completed in various protected areas between 1992 and 1996 (CITES 1997a). The most complete data were from Jujuy Province, where the Olaróz-Cauchari Reserve has been surveyed regularly since 1973–74. Estimates from protected areas in other provinces were somewhat dated and incomplete (CITES 1997a).

The vicuña population of Argentina is believed to have increased over the past 10 to 25 years. Data from the Olaróz-Cauchari Reserve showed a steady increase from about 330 individuals in 1973 to about 6,500 in 1994 (Canedi 1995). Laguna Brava Reserve also showed substantial population increases (CITES 1997a). Possible factors contributing to the population increases include the newly developed support for vicuña by some campesino communities of the Puna, the creation of protected areas, and the control of illegal hunting (Canedi 1997, pers. comm.). Dr. A. Canedi anticipates that some transplanting will occur from certain areas if populations grow to exceed carrying capacity.

In response to the proposed rule, two commenters stated that the vicuña population of Argentina is currently estimated to be 50,000 animals, however, we have not seen any reports that would corroborate this population estimate on the basis of scientifically-sound survey methodology. Vicuña populations may have actually declined during the later 1990's as a result of a prolonged drought. Dr. A. Canedi (*in litt.* to FWS 1999) stated that a drought in 1996 to 1998 contributed to a substantial decline in the vicuña population of the Olaró-Cauchari Reserve (from 6,500 in 1995 to 4,800 in 1998). He said that similar declines had occurred in other provinces. Thus, the current population estimate for Argentina is uncertain.

Population Utilization. Poaching is not considered by national authorities to be a major problem at present (V. Lichtschein, CITES Management Authority of Argentina, pers. comm. with K. Johnson, DSA, 1999; E. Hoffman, journalist, pers. comm. with K. Johnson, DSA, 1999), although instances of poaching have been observed. Sport hunting of vicuña is not permitted in Argentina, and no permits have been issued for the capture of wild vicuñas for scientific or educational purposes.

Vicuña utilization in Argentina consists of a developing effort to sustainably use wild populations in Jujuy Province, and efforts to develop captive management programs in the provinces of Catamarca, Jujuy, La Rioja, Salta, and San Juan. Two different captive management systems are in operation in Argentina. The first has been developed by personnel of the National Institute of Agriculture and Cattle Technology (INTA) at their High Altitude Experiment Station (CEA) at Abra Pampa (Rebuffi 1995). A second captive management operation has been implemented by the Asociación Civil de Artesanos y Productores "San Pedro Nolasco de los Molinos" (Los Molinos) in the Molinos Department of Salta Province.

The CEA INTA captive management model consists of maintaining a variable number (20 to 36) of semi-domestic vicuña in fully-fenced enclosures of a few hectares. The vicuña are on loan from the CEA INTA semi-domestic herd at Abra Pampa; vicuña family groups are placed into the enclosures. The fenced enclosures are constructed on private lands with fencing material provided through loans from a private company. Individual ranchers who have been trained in vicuña management are responsible for protecting and caring for the vicuña. This model has been

developed to be relevant to the conditions of the Argentine Puna where lands are owned by individual ranchers, human populations are very sparse, and vast areas of potential habitat with limited vicuña populations exist (CITES 1997a). The model is based on almost 30 years of study and experimentation with captive vicuña (Rebuffi 1995). Studies have emphasized efficient fences to contain vicuña, the determination of the carrying capacity of different range types, and the capturing and shearing of vicuña and fiber processing procedures.

Young vicuña, produced under these captive conditions, are either used as replacement stock or are returned to CEA INTA as compensation for the initial vicuña loan. The captive herds are sheared at two year intervals using the techniques developed at CEA. At the time of shearing, representatives of INTA, the Provincial Department of Renewable Natural Resources, the National Gendarmes (military police), a Doctor of Veterinary Medicine, and the fiber buyer are present to observe and/or supervise the operation. The fiber buyer in 1997 was an Argentine fiber processing company that provided the fencing materials through loans. The fiber purchase is used to retire the debt on the fencing materials, and to provide immediate payment to the individual rancher. The fiber, at the time of shearing, is weighed, bagged, marked, sealed, recorded and stored in a sealed warehouse until all commercial authorizations have been completed.

We understand that, to date, about 20 individual ranchers have captive herds established with vicuña from the captive herd at CEA INTA Abra Pampa. Apparently there are not enough captive vicuña at Abra Pampa to establish many more captive herds at the present time. Most of the captive herds have been established in Jujuy and Salta Provinces. We believe that the majority of captive populations are probably well maintained and in good health, and that mortality associated with shearing is probably low. However, we are aware of one instance where most of the animals in a captive population died because the animals (20 of 36 vicuñas) were sheared in winter and died of pneumonia soon thereafter ("Las Esquilaron en Pleno Invierno: Denuncian Muerte de Vicuñas," PREGON, San Salvador de Jujuy, Wednesday, July 28, 1999).

The production of vicuña fiber under captive conditions is said to benefit the individual campesino rancher, and is said to be growing in popularity. Proponents claim that this program benefits the status of vicuña in the wild, because the ranchers support the program and, therefore, tolerate the

presence of non-captive vicuña in the provinces. The program also is claimed to have enhanced the relationship between ranchers and the National Gendarmes, which has improved protective measures for vicuña. The National Gendarmes have apparently succeeded in reducing poaching of wild vicuña, although we have not been able to obtain any quantitative information that demonstrates a clear link between establishment of captive vicuña populations and improved conservation status of wild vicuña populations. Growth of wild vicuña populations is not necessarily an indicator of the success of the captive management program, because some populations have increased in areas without captive populations, and because growth of wild populations began in some areas long before captive populations were established.

Based on information available to us, we continue to have concerns over the effectiveness of this captive management model as a conservation tool for wild populations of vicuña. The captive population at Abra Pampa has been developed from a limited number of founder animals (16 females and 6 males). Some scientists have expressed concerns over the genetic fitness of animals in this population. In the proposed rule, we expressed concern about possible genetic and disease consequences if vicuña from the Abra Pampa population were translocated to different provinces and subsequently escape to mingle with the wild population. We no longer believe that these are major threats, primarily because of the very small number of animals involved and the level of veterinary care the captive animals receive. In the proposed rule, we expressed concern that captive populations might be established in the most favorable vicuña habitat areas, thus potentially depriving wild vicuña populations of important resources such as water or forage; we no longer believe that this is a major threat, primarily because of the very small amount of land involved. We are concerned, however, that economic gains realized from sales of vicuña fiber may be used by individual ranchers to increase the size of their domestic livestock herds, thus increasing grazing pressure on vicuña habitats outside enclosures. Such a result was predicted in a study of campesino communities and vicuña utilization in Catamarca Province, conducted by Rabinovich et al. (1991), although Rabinovich cautioned that those results were site-specific.

We are not yet convinced that the INTA captive management program will

be able to provide socioeconomic benefits to a large number of people over the long term, thereby reducing pressure on wild vicuña populations, for the following reasons. We understand that only about 20 individual ranchers have captive herds, so the number of people realizing a benefit from this program is very small in comparison to the total number of Puna residents. The number of captive herds is not likely to increase substantially in the near future. We do not have enough information to determine the exact financial return realized by individual ranchers participating in the captive management program, because it varies based on the price of the fiber and the amount obtained per shearing, but average annual income appears to be in the range of US \$750 to \$1,100 per year per rancher. This may or may not constitute a substantial return, depending on the individual ranchers involved. However, it appears that all or most individual ranchers are indebted (for the fencing materials) to the same company that purchases their fiber. This may put the ranchers at a disadvantage in obtaining the highest price possible for their fiber. Last, it does not appear that any of the proceeds from sales of vicuña fiber or fiber products are channeled into conservation programs for wild vicuña, thus there is no direct or even indirect financial link between these programs.

The Grupo Especialista en Camelidos Sudamericanos (GECS) of the IUCN/SSC believes that captive management could be compatible with conservation of wild vicuña populations and natural habitats if the following conditions are met: (1) That habitat and food availability for free populations is not threatened by captive operations; (2) that the risk of mingling captive and wild, free-ranging vicuñas is minimized with efficient fencing and continued monitoring; (3) that local human communities have an active participation in tasks and also in revenues emerging from vicuña use; and (4) that part of these revenues be reinvested in the conservation goal. One captive management operation in Argentina appears to have begun fulfilling the criteria outlined by GECS. The Asociación Civil de Artesanos y Productores "San Pedro Nolasco de los Molinos" (Los Molinos) has a structure wherein its 25 participating families (120 individuals) share tasks and benefits of using the vicuña, has established a captive management operation (Criadero Coquena-El Refugio de las Vicuñas) in an area not immediately within occupied vicuña habitat, has conducted a vicuña

population survey in the Molinos Department of Salta Province, and is interested in further developing and implementing a conservation program for wild vicuña. Los Molinos obtained its vicuña on loan from CEA INTA in 1994, but does not rely on CEA INTA for technical support. It has not accepted any financial support for developing its operation, but has accepted a variety of technical support from different regional agencies. Los Molinos does not sell the raw fiber but uses it to produce a finished product on site.

Los Molinos' model of captive vicuña management differs from the CEA INTA management model in that it includes a component of research and conservation of wild vicuñas, attempts to "add value" to the raw fiber by producing traditional crafts, thereby increasing the financial return to the local community, and provides economic benefits to multiple persons rather than to an individual rancher. The Los Molinos program appears to have a demonstrable conservation benefit for wild vicuña populations, and a link between conservation activities and economic benefits to members of the cooperative.

Vicuña population trends throughout Argentina are positive, and populations have increased to the extent that we no longer consider them to be endangered by previous or current overutilization. We do, however, consider the vicuña to be threatened by overutilization throughout Argentina because appropriate conservation mechanisms are not yet fully implemented, and populations have not yet recovered to the extent practicable, based on successful conservation and management.

Bolivia

Population Status. A country-wide census in 1996 recorded 33,844 vicuña in Bolivia (CNVB 1996). In 1997, the total population was estimated at about 35,500 (DNCB 1997, pers. comm.), while in 1999, the total population was estimated at 45,000 animals (CITES 2000a). Population data determined by direct and total counts of individuals on selected habitat areas are best for the three experimental pilot areas—Ulla Ulla, Mauri-Desaguadero and Lipez Chichas—whose populations were transferred to CITES Appendix II in 1997. Periodic censuses have occurred over a 30-year period for Ulla Ulla, and over a 15-year period for the other two pilot areas. Populations have been growing steadily in each area during the period that censuses have been conducted (CITES 2000b).

The Bolivian vicuña population is believed to be increasing, and perhaps

has reached carrying capacity in a few areas. Population growth has been accomplished by increases in vicuña population density in known habitat areas, and population expansion into heretofore unoccupied habitat areas. It is believed that the principal reason for the growth in the general vicuña population is the protection provided by the campesino communities, especially those that have government supported game wardens.

Population Utilization. Some campesino communities in Bolivia remain hostile to vicuñas because of crop depredation or perceived competition with domestic livestock, and the fact that few economic benefits are presently realized from vicuña. Some vicuña may be killed as a consequence. In addition, vicuña are known to be poached in Bolivia (CITES 1997b). Poaching levels may be high enough to warrant concern. For examples, one person was arrested outside La Paz with 324 vicuña skins in his possession, and tour operators in remote areas claim to encounter skinned vicuña carcasses on a regular basis (E. Hoffman, pers. comm. with K. Johnson, DSA, 1999). Game wardens report isolated cases of poaching of 3 to 20 animals (CITES 2000a). Vicuña products, including rugs made from many skins, can be seen for sale in the San Francisco Plaza in La Paz (E. Hoffman, pers. comm. with K. Johnson, DSA, 1999). Local authorities use vicuña ponchos, scarves, and blankets, especially at traditional celebrations (CITES 1997b). The fiber used in these products comes from animals killed illegally (CITES 1997b). The granting of custodianship to local communities, and the delegation of monitoring responsibilities to the provincial governments is expected to provide a mechanism to address this issue.

Vicuña are not captured in Bolivia for educational or scientific purposes. There is no intent to have commercial meat operations as the only authorized commerce will be in fiber and fiber products from live-shorn vicuñas from wild populations.

Bolivia's National Program for the Conservation of Vicuña is in the early stages of implementation. Bolivia is developing a program for harvesting and marketing fiber shorn from wild, free-ranging vicuña; this program borrows significantly from the successful program of wild population management and utilization in Peru. The initial step of the National Program was to transfer three substantial vicuña populations in areas where campesino commitment was high (Ulla Ulla, Mauri-Desaguadero, Lipez Chichas) from

CITES Appendix I to II, with a zero quota for export. This proposal was adopted by the CITES Parties at COP 10 in 1997. The transfer allowed the development and refinement of pilot management and shearing programs that would eventually be expanded to other vicuña habitats. The second step was the conclusion of an agreement between the Programa Quinoa Potosi (PROQUIPO) and the DNCB (Dirección Nacional de Conservación de la Biodiversidad Unidad de Vida Silvestre) to operate the Pilot Center of Sud Lipez to actually develop and demonstrate those management and shearing programs. The pilot project involves the capture and shearing of live vicuñas, and the manufacture of fabric and eventually the sale of vicuña fiber for the manufacture of textiles to demonstrate the potential economic benefit to campesino communities. The third step was the removal of the zero quota for export at COP 11 in 2000; this would help provide the basis for implementing the program on a more widespread basis. Bolivia subsequently reported an export quota of 1.975 kilograms for 2000 with the CITES Secretariat. A fourth step, a proposal to transfer all remaining populations in Bolivia to Appendix II (CITES 2000a), was presented at COP 11 but withdrawn because of opposition by the other Vicuña Convention countries. That proposal is likely to be re-submitted at a future COP, perhaps COP 12. With approval of such a program the live-shearing program could be expanded country-wide.

Vicuña population trends throughout Bolivia are positive, and populations have increased to the extent that we no longer consider them to be endangered by previous or current overutilization. We do, however, consider the vicuña to be threatened by overutilization throughout Bolivia because appropriate conservation mechanisms are not yet fully implemented, and populations have not yet recovered to the extent practicable, based on successful conservation and management. Vicuña currently occur on approximately 3.4 million ha in Bolivia, whereas their potential range in Bolivia has been estimated at approximately 10 million ha (INFOL 1985 cited in CITES 2000a). Although vicuña will never occupy that range fully, due to habitat changes, grazing by domestic livestock, and human developments, there still appears to be considerable room for continued vicuña population recovery in Bolivia.

Chile

Population Status. Over 96 percent of the vicuña (19,200 of an estimated 19,850) in Chile occur in Parinacota Province in the extreme northeastern portion of the country. The populations in the Caquena Management Zone (estimated to be 3,700 vicuña) and in the National Vicuña Reserve (estimated to be 8,050 vicuña) in this Province were transferred to CITES Appendix II in 1987; these would be the only populations utilized commercially should a program to capture and shear live vicuña be initiated (Galaz 1997, pers. comm.). The adjacent population in Lauca National Park (estimated to be 7,410 vicuña) was retained on Appendix I to provide further control over vicuña in this protected natural area. The remaining four percent of Chile's vicuñas occur elsewhere in the upper Andean tablelands in northeastern Chile. About 650 vicuña are believed to occur in small scattered groups over about 215,000 ha elsewhere in the Tarapaca Region and in the neighboring Antofagasta and Atacama Regions.

The vicuña population of Chile has grown steadily since 1975 (Bonacic 2000). The vicuña population in Parinacota Province is believed to be near carrying capacity in typical vicuña habitat.

Population Utilization. The hunting, capture, and sale of vicuña and vicuña products is unlawful in Chile without the authorization of the Servicio Agrícola y Ganadero (SAG—Agriculture and Livestock Service) of the Chilean government as specified in the new hunting law of 1996 (Ley No. 19.473) (Iriarte 2000). At present, there is no national or international trade in vicuña fiber, no exports of living vicuña and no known illegal trade in vicuña products. Poaching is not considered to be a problem in Chile (E. Hoffman, pers. comm. with K. Johnson, DSA, 1999).

For more than 10 years, the Chilean government investigated the development of a sustainable use program based on capture, live-shearing, and release of wild vicuña (Bonacic 2000a). Now, we understand that Chile is planning to develop a captive management program that may take up to 3,000 vicuña from the wild and maintain them in captivity in the altiplano (Galaz, pers. comm., cited in Bonacic 2000a). We do not know if, to date, Chile has actually authorized the capture of wild vicuñas to develop the program. The new 1996 law gives SAG the authority to authorize sustainable use of the vicuña when certain conditions have been met (Iriarte 2000). The only exports of raw fiber, as of

1997, were in order to obtain analyses of the fiber's physical properties (SAG 1997, pers. comm.).

Vicuña population trends in Chile are positive or stable, and populations have increased to the extent that we no longer consider them to be endangered by previous or current overutilization. However, because a vicuña fiber industry could potentially be approved in Chile, this factor is still considered to threaten the Chilean population until such time as control mechanisms for harvest and commercialization are demonstrated to be adequate to control overutilization.

Peru

Population Status. The 1997 census in Peru estimated a population of 103,650 vicuña on 6,361,000 ha of habitat (Hoces 1997, pers. comm.) in the high Andean tablelands of the departments of Ancash, Apurímac, Arequipa, Ayacucho, Cajamarca, Cusco, Huancavelica, Huanuco, Junín, La Libertad, Lima, Moquegua, Pasco, Puno and Tacna. More recent estimates suggest a total population of around 142,000 vicuña (Bonacic 2000a), however, we have not seen any reports that would corroborate this population estimate on the basis of scientifically-sound survey methodology.

The recovery of vicuña populations in Peru has not been steady, a consequence of political, economic, and environmental fluctuations over the past 35 years. Vicuña numbers were at a low point in 1965, grew steadily until a prolonged drought in 1978 to 1979 caused numbers in Pampa Galeras to decline substantially, gradually built to high levels in 1990, but were significantly reduced by illegal hunting from 1991 to 1994, while there was civil unrest in the region (Wheeler and Hoces 1997). Vicuña populations have been increasing since 1994. This is believed to be due to a combination of factors—the decrease in civil unrest in the high Andean region, increased efforts to control vicuña poaching, and the development of a vicuña fiber utilization program. Several campesino communities now participate in the protection, management and utilization of vicuña in cooperation with the National Council of South American Camelids (CONACS) and the National Institute of Natural Resources (INRENA), which is the designated CITES Management Authority for Peru.

Population Utilization. At present, legislation in Peru permits the taking of vicuña if properly authorized and technically supported. Some culling of vicuñas (about 1,000 per year) did occur from 1977 to 1983 but no quotas have

been declared and little if any legal take has occurred since that date. Any take for scientific studies is rare and, when authorized, is tightly controlled. There is no legal utilization of vicuña for meat or parts.

Commercialization of vicuña fiber products in Peru is under a system of controls that include monitoring fiber collections, governmental supervision by CONACS and INRENA, and the involvement of local campesino communities. CONACS and INRENA are responsible for protecting and monitoring vicuñas within protected areas such as Huascaran National Park, Pampa Galeras National Reserve, and the Salinas and Aguada Blanca National Reserve. The protection and monitoring of vicuñas in the rural communities is a major responsibility of participating campesino communities in coordination with CONACS and INRENA.

Two models of vicuña utilization are being pursued in Peru at the present time. The first model is based on the management of wild populations, utilizing capture methods based on the traditional "chaku," a surround technique used by the Incas to capture and shear vicuñas and release them back to the wild (Wheeler and Hoces 1997). The second model is based on captive management of vicuña. Since 1996, CONACS has been promoting the establishment of Sustainable Use Modules (SUMs) which are fully fenced enclosures of approximately 500 to 1,000 ha, each with about 250 vicuña.

The "chaku" model was the initial approach to wild vicuña population management undertaken in Peru after populations began to recover. The most successful experiences with wild vicuña population management have been in the campesino communities of Lucanas and San Cristobal around Pampa Galeras. CONACS developed the "chaku" technique for capturing and harvesting fiber from living wild vicuña at Pampa Galeras, and has taught and supervised campesino communities in this technique and other aspects of vicuña management. The process used to capture and shear vicuñas was observed in August 1997 by Dr. H. Short (on behalf of the National Fish and Wildlife Foundation) and described in the proposed rule. That description will not be repeated here, but readers are referred to the proposed rule (64 FR 48743, September 8, 1999).

At Pampa Galeras and in other areas of the Peruvian Puna, vicuñas occur on communal lands and campesinos represent a plentiful and important work force. As described in the proposed rule, vicuña management essentially provides full-time

employment for many members of the Lucanas community—building fences, obtaining and cleaning fleeces, providing protection to vicuña and providing instruction to other communities wishing to establish a vicuña industry. It was reported that as part of the arrangement between the Lucanas community and the government, 500 vicuñas were used to restock vicuña habitats in neighboring communities, in exchange for both a hydro-electric project and other economic assistance. The Pampa Galeras experience has been the model for other campesino communities in Peru, and is the model for similar efforts in Bolivia.

Efforts are underway in Peru to implement a large-scale captive management program for vicuña (Lichtenstein et al. 1999b, Sahley 1999, Sahley et al. submitted). Since 1996, CONACS has been promoting the establishment of Sustainable Use Modules (SUMs), which are fully fenced enclosures (corrals) of approximately 500 to 1,000 ha, each with about 250 vicuña. We understand that long-range plans were to establish SUMs in 600 campesino communities by the year 2000 according to the Sociedad Nacional de Criadores de la Vicuña (SNV—National Society of Vicuña Breeders) (SNV 1997, cited in Sahley 1999). We do not know if this goal was achieved, but by 1999 approximately 21,000 vicuña (D. Hoces, Technical Director, CONACS, *in litt.* to FWS, 1999) were being held in approximately 250 Sustainable Use Modules in Peru (Lichtenstein et al. 1999b). Translocation of animals is involved in this management model; vicuña are relocated from areas where they are abundant to establish captive populations in new areas.

Dr. Gabriela Lichtenstein of the Instituto Internacional de Medio Ambiente y Desarrollo—America Latina (IIED—AL) and her research team assessed and compared the two vicuña management systems in Peru (i.e., captive management versus wild, free-ranging management) from ecological, social, and economic perspectives, and conducted a feasibility analysis of both systems (Lichtenstein et al. 1999b). Two projects in the Department of Ayacucho—Proyecto Barbara D'Achille, Lucanas and Proyecto de San Cristobal y aledañas—were evaluated as case studies. Their findings strongly indicate that management of wild, free-ranging vicuña populations is a better alternative than captive management from all three perspectives—ecological, economic, and social. They concluded that the economic viability of enclosures

(corrals) for campesino communities is questionable, especially when the enclosures have fewer than 250 vicuñas. They characterized captive management as a high risk venture with low profit potential. Conversely, wild management was characterized as a medium to high risk investment with potential high profits. After considering the low carrying capacity of the habitat, they determined that placing more than 333 vicuñas per corral would have a negative impact on the environment and increase desertification. They noted that genetic interchange and dispersal were limited by enclosures, and expressed concern about translocating animals without paying proper attention to health and genetic concerns. They suggested that the SUM project would greatly benefit if it were accompanied by solid research on ecological carrying capacities, and on the genetic, behavioral, and population impacts of enclosures on vicuñas.

Sahley (1999) and associates (Sahley et al. submitted) have also compared the two management systems in Peru, and evaluated two projects as case studies—Tambo Cañahuas and Tocra in Arequipa. Their results are similar to those of the Lichtenstein group—that the wild, free-ranging management model (i.e., capture, shearing, and release of wild vicuñas) is biologically sustainable in the short- and long-terms, and is economically more viable than the captive (corral) management model.

These two projects are the only research efforts we are aware of that have systematically examined and compared the costs and benefits of both captive and wild, free-ranging vicuña management systems from ecological, social, and economic perspectives. Therefore, we attach great importance to their conclusions, although we recognize that these conclusions would benefit from additional research. Certainly additional research and monitoring of SUMs is needed to assess the ecological, economic, and social viability of that program. We are concerned about the genetic and population dynamics implications of captive management, as well as habitat implications (i.e., how are carrying capacities of corrals determined, and what happens when that capacity is reached?). We are also concerned about possible disease and genetic implications of vicuña translocations to start new populations, and believe that such translocations should be based on a previously-developed protocols that consider the possible genetic and disease consequences. We are not aware that Peru has developed such protocols. Wheeler et al. (2000) have identified

four genetically distinct groups of vicuñas in Peru. They urge caution with regard to repopulation efforts, and suggest that translocations occur within the four distinct groups rather than among the groups.

Vicuña population trends throughout Peru are positive, and populations have increased to the extent that we no longer consider them to be endangered by previous or current overutilization. We do, however, consider the vicuña to be threatened by overutilization throughout Peru because appropriate conservation mechanisms are not yet fully implemented, and populations have not yet recovered to the extent practicable, based on successful conservation and management. Vicuña in Peru in 1997 were estimated to occur on about 6.4 million ha throughout the 15 to 17 million ha of suitable habitat in the Peruvian highlands. Although vicuña will never occupy that range fully, due to habitat changes, competition with domestic livestock, and human developments, there still appears to be considerable room for continued vicuña population recovery in Peru.

C. Disease or Predation

Vicuñas, like most mammals, suffer from a variety of endo- and ectoparasites. Mange caused by parasitic mites can result in skin lesions and loss of hair, especially in those populations that coexist with domestic livestock, and during drought conditions. Major predators on vicuña include the puma (*Felis concolor*), the Andean fox or zorro (*Dusicyon culpaeus*) and perhaps the Andean condor (*Vultur gryphus*), which may kill newborn and sick animals.

Vicuña populations in the four range countries are not believed to be endangered or threatened by the impacts of disease or predation, because populations are increasing or stable and there is no evidence of widespread disease outbreaks as an actual or potential mortality factor. We remain concerned about the potential for disease transmission from vicuña that are translocated for the development of new captive populations or for release to the wild to supplement wild populations.

D. The Inadequacy of Existing Regulatory Mechanisms

The regulatory mechanisms in place vary among the four range countries under consideration. However, all four countries are signatories to both CITES and the Vicuña Convention.

Argentina

In Argentina, the First Interprovincial Technical Conference on the Conservation of the Vicuña met in 1972, and agreed to develop methods to capture and transport vicuña to recolonize vicuña habitats, and to develop a plan for the management, shearing, and the manufacture of handicrafts from vicuña fiber. Additional meetings integrated the provincial vicuña programs, established a national program, and established the "Vicuña Regional Commission" as a mechanism to attain national coordination on the vicuña management program (Comisión Regional de la Vicuña 1994).

In 1988, Argentina signed the Vicuña Convention, and has since carried out its programs within the context of this agreement. Argentine National Law for the Conservation of Wildlife 22.421 and its Regulatory Decree No. 691, provides for vicuña protection. The Constitution of Argentina, reformed in 1994, assures the rights of the provinces over their respective natural resources, assures the rights of indigenous people to use these natural resources in traditional ways, and embraces the conservation of biological diversity and the sustainable development of natural resources.

Several laws and decrees within the Vicuña Provinces (Jujuy, Salta, Catamarca and La Rioja) list the vicuña as a protected species, establish protected areas for the species, prohibit hunting, and prohibit commercialization, transportation, or manufacturing of parts or products from hunted animals, regardless of origin. Laws and decrees also allow the installation of captive breeding operations, and the commercialization and industrialization of products from captive-bred animals (Canedi 1997, pers. comm.).

The Departments of Renewable Natural Resources for Jujuy, Salta, Catamarca and La Rioja Provinces have signed agreements with the Secretariat of Natural Resources and Human Environment and the National Gendarmes, a Federal Law Enforcement group, to enforce provisions of Provincial and National laws that prohibit illegal hunting and smuggling. The Gendarmes conduct extensive patrols in rural areas and on the borders, and have officers at the ports, airports, and borders. They are charged with conducting inspections and investigations involving the illegal trafficking of vicuña fiber. Their environmental division meets with campesinos and tries to promote the vicuña program. Although the

Department of Renewable Natural Resources and the National Gendarmes may not have sufficient resources at their disposal, they are thought to be working effectively with the campesino communities of the Puna as evinced in the increase of vicuña populations of the Puna (Canedi 1997, pers. comm.).

At present, the only legal vicuña fiber in Argentina is that obtained from the shearing of live vicuña from officially-authorized captive populations. We understand that a registry of authorized captive populations is maintained by the national CITES Management Authority, the Dirección de Fauna y Flora Silvestres (V. Lichtschein, pers. comm. with K. Johnson, OSA, 1999). Shorn fiber is bagged, tagged, weighed, sealed, recorded, and the government agency that supervised the shearing is identified on the bag. Fiber from an officially-authorized rancher can be directly auctioned for export, or the rancher, if an artisan, can retain the fiber, and make and sell cloth. Either the fiber buyer or the rancher-artisan would need a transport permit, and that transport permit would need to be presented when the CITES export permit is requested.

Fabric or products manufactured by rancher-artisans need to be marked with the official seals or stamps. Such fabrics or products, expected to be limited in numbers, can only be sold to licensed outlets recognized and approved by the government. The check on whether fabrics or products are made from legal vicuña fiber will be made by comparing weights of raw fiber harvested under supervised shearing operations against the combined weight of raw fiber retained by the authorized rancher-artisan and the weights of fiber products produced by that rancher-artisan. From information available to us, it appears that provincial natural resource departments are responsible for supervising shearing. However, at present, it is not clear to us which government agency approves licensed outlets for vicuña products, and which agency conducts checks of producers to ensure that only legal fiber is used in artisan products. There is apparently no national legislation that covers all aspects relating to the trade in vicuña or the administrative aspects relating to this trade (CITES 1997a).

Argentina acceded to CITES in 1981. Wild vicuña populations in Jujuy Province, and so-called "semi-captive populations" of vicuña in Jujuy, Salta, Catamarca, La Rioja and San Juan Provinces were transferred from CITES Appendix I to II at COP10, effective September 18, 1997. Exports are limited to fiber shorn from live animals, cloth

and articles made from that cloth, luxury handicrafts and knitted articles. The reverse side of cloth and cloth products must bear the logo adopted by countries signatory to the Vicuña Convention and the words "VICUÑA-ARGENTINA." All specimens not meeting the above conditions are considered to be included in Appendix I and subject to the prohibition against primarily commercial trade, and other CITES Appendix I requirements.

Articles bought by a foreign tourist at a government-authorized store are legal to export as personal accompanying baggage only after a CITES export permit containing all required information has been obtained. The only apparent control of artisan goods sold to residents of Argentina and later resold to foreign tourists is the requirement that the tourist have a CITES export permit upon return to his/her country of origin. This is also a requirement for importation of any personal effects or personal accompanying baggage by U.S. residents, under the conditions of the special rule accompanying this rule. If the fiber from an authorized captive breeder is sold at auction, the buyer, presumably a fiber-processing company, would get a permit from the Provincial Natural Resources Department. The buyer would present that permit to the National Secretary for Natural Resources and Human Environment to obtain the required CITES permit for export.

The National Gendarmes are expected to aid provincial authorities in the control of poaching, illegal trade, and transport of unauthorized products within the country and the routine inspection of products of legal origin to certify their origin. Collaboration will also be provided by the National Aeronautical Police at the country's airports to intensify inspections of commercial products and passengers.

We do not consider the vicuña to be endangered by inadequate regulatory mechanisms in Argentina. We do, however, consider the species to be threatened by this factor because many of the regulatory mechanisms are in early stages of implementation, we are still unclear about several aspects related to the control of trade in raw vicuña fiber and artisan products, and there appears to be no national legislation that covers all aspects relating to the trade in vicuña or the administrative aspects relating to this trade.

Bolivia

Bolivia's Programa Nacional de Conservación de la Vicuña (National Program for Vicuña Conservation, or National Program) is in the early stages

of implementation. The Ministerio de Desarrollo Sostenible y Medio Ambiente (MDSMA—Ministry of Sustainable Development and the Environment) is the agency responsible for managing all renewable natural resources. The Dirección General de Biodiversidad (formerly the Dirección Nacional de Conservación de la Biodiversidad—DNCB) is located within this Ministry and is responsible for policies dealing with conservation of biological diversity. This agency is responsible for executing the National Program for Vicuña Conservation.

Several laws and decrees are relevant to vicuña management in Bolivia. Bolivia and Peru signed the Treaty of La Paz in 1969 to provide a measure of international protection for vicuña (this treaty was a precursor of the current Vicuña Convention). The Agrarian Reform Act of 1953 enabled some rural communities to have private lands and other rural communities to have unfenced communal lands which are advantageous to free-roaming vicuñas. Law 12301 (Ley de Vida Silvestre, Parques Nacionales, Caza Y Pesca) passed in 1975, describes the government's obligation to regulate and administer the use of wildlife resources. Law 1333 (Ley del Medio Ambiente), passed in 1992, provides for sustainable use of authorized species, based on technical, scientific, and economic information. Law 1715, passed in 1996, created the National Institute for Agrarian Reform and promoted the sustainable use of land, the promotion of practices favoring conservation and the protection of biodiversity, and the concept that lands where conservation is practiced would not be subject to expropriation.

Decreto Supremo (Supreme Decree) No. 22641 declared a complete and indefinite ban on the killing of all wildlife species, and states that the ban can only be lifted through legislation indicating the species and conditions that have led to the lifting of the ban (CITES 1999). Supreme Decree No. 25458 of July 1999 ratified the general and indefinite ban established by Supreme Decree No. 22641, and modifies Articles 4 and 5 of that decree, related to lifting of the ban.

Supreme Decree No. 24529, passed in March 1997, authorized regulations for the protection and management of vicuñas in Bolivia. These regulations grant custodianship of vicuña populations to the rural communities (although the national government maintains ownership of the vicuña), give the rural communities the exclusive rights to use vicuña fibers, subject to the listed regulations, defines

the conditions under which use of vicuña fiber is carried out, and establishes the Sistema de Vigilancia de Vicuña (SVV—System for the Protection of the Vicuña). We understand that the government has begun implementation of regulations by holding workshops in campesino communities to explain the regulations, by publishing print media guides describing the regulations and by helping campesino communities begin their compliance with the regulations (DNCB 1997, pers. comm.). We also understand that the government has begun coordinating with the National Police and military to help curb illegal activities dealing with vicuña and their products.

Under the regulations, all existing vicuña fiber products, including those in the domestic market, are to be inventoried and registered and all new products or fibers will also be registered. In the future, any non-registered vicuña products will be considered illegal. The only fiber that will be allowed for commercial purposes will be that obtained from live-shorn vicuña that have been captured according to regulations. Only raw fiber for the manufacture of cloth will be exported. Bolivia does not have a textile industry with the capability to manufacture vicuña fiber cloth (DNCB 1997, pers. comm.).

The overall management of vicuña in Bolivia is based on National Program for Vicuña Conservation. The National Program emphasizes the management and use of wild free-ranging populations of vicuña, population monitoring, and the improvement of habitat quality. Under the regulations, the harvesting of vicuña fiber will only be allowed in organized campesino communities that (1) have the rights to capture and shear vicuña and utilize vicuña fiber, and (2) have delegated authority to work with government authorities in the management and conservation of the vicuña. These campesino communities are the only legal benefactors of the sale of vicuña fiber. The National Program will be carried out in these communities. Management will be based on Planes de Manejo de la Vicuña (PMV) (Vicuña Management Plans) prepared by and for each Area de Manejo Communal (AMC) (Communal Management Area). Management plans will include population monitoring and habitat management and improvement measures. This information will be basic to decisions to conduct vicuña drives, and in the conduct of capture and shearing operations. Monitoring information will be provided by game guards and recommendations for management actions will be produced

in the campesino communities. Government authorities will be present when vicuña capturing and shearing occurs. The authorities will register the number of vicuña captured, the number shorn, the weights of fleeces, etc., and supervise the bagging, weighing, marking and sealing of vicuña fiber. This information will be provided to the CITES authorities for reference purposes and information later provided in support of export permit applications must correspond to the on-site records. The Netherlands government has provided financial support to underwrite initial efforts to implement the National Program.

The regulations also establish the SVV, which provides for the development of an inter-community network for the management and protection of the species. This network will have direct control over activities such as fiber sales, and will also have responsibilities for determining status and trends in vicuña populations. The SVV will be composed of game guards made up of local vicuña protection officers and Park Rangers who are the enforcement officers within protected areas such as National Parks. The game guards will be responsible for the protection and control of vicuña in each conservation unit. Protection and control efforts will also be supported by special units of the National Police. The DGB will regulate and coordinate the activities and participants within the SVV.

Bolivia has been a CITES Party since 1979. The vicuña populations of the Mauri-Desaguadero, Ulla Ulla and Lipez-Chichas Conservation Units were transferred from CITES Appendix I to II, with a zero annual export quota, at COP10, effective September 18, 1997. The zero quota was removed at COP11; Bolivia subsequently reported an export quota of 1.975 kilograms for 2000 to the CITES Secretariat. Exports will be limited to fiber shorn from live animals, and to cloth and articles made from such cloth, including luxury handicrafts and knitted articles. The reverse side of cloth and cloth products must bear the logo adopted by countries signatory to the Vicuña Convention and the words "VICUÑA-BOLIVIA." All specimens not meeting the above conditions are considered to be included in Appendix I and subject to the prohibition against primarily commercial trade, and other CITES Appendix I requirements.

The military will assist in patrols, inspections and the seizures of illegal products. Customs will assist in the control of the export and import of fiber at the ports of entry, border posts and

airports to assure that CITES requirements are fulfilled.

We do not consider the vicuña to be endangered by inadequate regulatory mechanisms in Bolivia. We do, however, consider the species to be threatened by this factor because many of the regulatory mechanisms are in early stages of implementation, and because poaching continues to be a threat in Bolivia.

Chile

The existing regulatory mechanisms in Chile are dedicated to the protection of vicuña. Law No. 4.601 passed in 1929, modified by Law No. 19.473 passed in 1996, indefinitely closed the hunting season for vicuña throughout the Republic of Chile. The hunting, capturing and selling of vicuña (and vicuña parts) is outlawed. Persons possessing, transporting or involved in commercial operations with vicuña products need to prove their actions are authorized by these laws. The Servicio Agrícola y Ganadero (SAG) of the Ministry of Agriculture is the CITES Management Authority, and has a Department for the Protection of Renewable Natural Resources and a Wildlife Division. Authorized customs officers (uniformed police), accredited officials from SAG, and representatives of the National Forest Corporation (CONAF) provide protection to vicuñas within the national protected areas system (SAG 1997, pers. comm.).

As of 1997, it was illegal to possess vicuña parts and products in Chile, and the only exports of raw fiber were in order to obtain analyses of the fiber's physical properties (SAG 1997, pers. comm.). Because it was illegal to possess vicuña parts and products, no mechanisms had been developed for registering or identifying raw fiber, or for establishing warehouses for storing fiber (SAG 1997, pers. comm.). At that time (1997), preliminary plans for a vicuña fiber industry, should it become authorized, indicated that the responsible party would need to provide an application to SAG indicating, among other things, the likely number of animals to be captured and sheared, the expected yield of the fiber harvest, the logistics of the capture and shearing operation, where and how the fiber would be stored and its eventual destination (SAG 1997, pers. comm.). SAG, should they approve the application, would oversee the capture process, register the quantity of harvested fiber, and seal the warehouse where the fiber was being stored. SAG would also provide the necessary export permits, after determining that the quantities for export correspond to

quantities authorized and actually harvested. Preliminary plans also suggested that a mechanism would be established to deal with the production and sale of luxury handicrafts and knitted articles. That organization would be responsible for receiving the fiber, registering and offering the fiber products for sale, for recording the sale of registered craft items and providing an accounting of the sale of registered craft items (SAG 1997, pers. comm.).

We are aware that plans are currently underway to develop a captive management program in Chile, and that it is expected that vicuña will be captured from the wild and kept in captivity in the altiplano (Galaz, pers. comm., cited in Bonacic 2000a). We do not know if Chile has thus far authorized the capture of any vicuñas to develop the program. Bonacic (2000a) states that, at present, the legal, social, and ecological framework for vicuña captive management in Chile is complex and unresolved. However, the Government of Chile, in its comments to our proposed rule, stated that the present Hunting Law (Ley No. 19.473) provides Chile with the necessary tools and mechanisms for control and administration for sustainable management of the vicuña, and/or the establishment of captive breeding operations, so long as hunting is prohibited and its capture is strictly regulated.

Chile acceded to CITES in 1975. The vicuña populations of Paranicota Province, Region of Tarapaca (specifically, the populations in the Caquena Management Zone and the Vicuña National Reserve) were transferred from CITES Appendix I to II in 1987 at COP6. Any future export of vicuña products would be limited to fiber sheared from live animals in Appendix II populations and to cloth and items made from that cloth including luxury handicrafts, and knitted articles. The reverse side of cloth and cloth products would need to bear the logo adopted by countries signatory to the Vicuña Convention and the words "VICUÑA-CHILE." All specimens not meeting any of the above conditions are considered to be included in Appendix I and subject to the prohibition against primarily commercial trade, and other CITES Appendix I requirements.

We do not consider the vicuña to be endangered by inadequate regulatory mechanisms in Chile. However, because a vicuña fiber industry is likely to be approved in Chile but the adequacy of the specific regulatory mechanisms for harvest and commercialization have not yet been demonstrated, we consider that

the vicuña is still threatened by this factor in Chile.

Peru

The major breakthroughs in the management of vicuña in Peru were new laws transferring the custodianship of vicuñas to campesinos and campesino communities, giving the campesinos the responsibility to protect vicuñas, the implementation of protective measures, the determination that it was not necessary to kill vicuña in order to obtain fiber from their hides, and the development of management techniques to herd, capture, and shear living vicuñas (Wheeler and Hoces 1997). The key factor has been allowing the benefits of vicuña management and utilization to accrue collectively to campesino communities (rather than to middlemen or other individuals) (Wheeler and Hoces 1997).

The Peruvian infrastructure promoting vicuña management and commerce in vicuña fiber products includes the Consejo Nacional de Camelidos Sudamericanos (CONACS—Council of South American Camelids) which is a public, decentralized organization of the Ministry of Agriculture in charge of the promotion, standardization, and control of activities with the South American camelids. CONACS has offices in Lima and throughout the vicuña range, and is the proprietor of the trademarks “VICUÑA-PERU” and “VICUÑA-PERU-ARTESANIA.” The Institute of Natural Resources (INRENA) is also a public, decentralized organization of the Ministry of Agriculture, and is in control of all renewable natural resources in Peru, and is the CITES Management Authority for Peru. The National Society of Vicuña Breeders (SNV) is a private organization which represents approximately 780 campesino communities, and coordinates vicuña management within and between campesino communities (“Communal Committees of the Vicuña”) and with CONACS at both regional and national levels (Hoces 1997, pers comm.).

Several national laws protect vicuña and regulate its management. Law 26496, passed in 1995, has been especially important as it promotes protection and provides penalties for the illegal hunting of vicuña, gives the custodianship of vicuña herds that occupy campesino community lands to those campesino communities, and allows the campesinos to be responsible for the conservation, management and the utilization of the species. The law also establishes the Official Registry of the Vicuña which provides a record-

keeping process that controls and tracks volumes of fiber from the time the vicuña are sheared in the field to the time that fiber is sold as cloth or merchandise on the international market. Pertinent laws are implemented through the “Communal Committees of the Vicuña” which form the basis for the national conservation and management of the vicuña. There is a system of park rangers shared by groups of communities and these park rangers can access the National Ecological Police and Peruvian Army units to help control the illegal killing of vicuña.

CONACS and INRENA authorize and control management activities, including vicuña capture. The shearing, collecting, processing and commercialization of vicuña fiber from wild vicuñas or from groups contained within permanent enclosures, is controlled by CONACS and INRENA. The processing and commercialization of the fiber is done by a single company that obtained that right through a competitive bidding process at a supervised auction. A cooperative agreement exists between the SNV, and the company winning the competitive bid, apparently to ensure that campesino communities will be correctly represented in the distribution of monies from the sale of vicuña fiber and fiber products. There is an authorized shearing season, and shearing is supervised by personnel representing CONACS, SNV and INRENA. Pertinent information is gathered at the time of shearing, and a report describing the shearing operation (numbers of animals, fiber weights per animal, etc.) and signed by a representative of the Communal Committee and CONACS, becomes part of the record at the Official Registry of the Vicuña.

After vicuña populations in Peru began to recover, management was initially based on wild, free-ranging populations, utilizing capture methods based on the traditional “chaku,” a surround technique used by the Incas to capture and shear vicuñas and release them back to the wild (Wheeler and Hoces 1997). Since 1996 CONACS has promoted a captive management program where up to 250 or more vicuñas are maintained in enclosures of approximately 500 to 1,000 ha (Lichtenstein et al. 1999b, Sahley 1999, Sahley et al. submitted). Described in a Ministry of Agriculture project entitled “Programa de fortalecimiento de la competitividad communal en la crianza le vicuñas,” this program significantly changed the management orientation in Peru from wild, free-ranging populations to captive populations. This

approach has detracted from the management of wild vicuña populations, and has cost campesino communities more than \$2 million to build fences—incurring a substantial debt in the process—while little has been spent strengthening anti-poaching efforts (Sahley et al. submitted).

In September 2000, then-President Fujimori issued a Supreme Decree (Decreto Supremo No. 053–2000–AG, titled “Facultan al Ministerio a traves del CONACS, entregar en custodia y usufructo hatos de vicuña y/o guanaco a personas naturales y juridicas, distintas de comunidades campesinas”) that, among other things, extended custodianship of vicuña to all persons having vicuña on their lands, and not just campesino communities as specified in Law 26496. This Decree appears to undermine the very basis for recent vicuña management in Peru—management by campesino communities, with benefits accruing to those communities—by allowing other individuals or companies with land holdings to commercialize fiber from vicuña on their lands. The SNV adamantly opposes this Decree, and is working to get the new government to drop or reverse it.

A second source of legal fiber is from vicuña that die from natural causes or are found or obtained by campesinos or park rangers, or from skins that are seized in successful anti-poaching operations. Such specimens, to become legal, must be declared to SNV and CONACS, and entered into the vicuña registry. Legal fiber is gathered and stored in private warehouses belonging to the campesino communities, registered in the vicuña registry, and is under the control of CONACS. Illegal fiber is prevented from entering commerce because it is not registered with the vicuña registry, and consequently not included in the fiber stores represented in the single legal auction. The vicuña registry records weights of fiber sheared or collected, carded or cleaned, and these weights are used by CONACS and SNV throughout the processing and commercialization process to indicate whether final products likely only contain legal fiber. The CITES Management Authority controls commerce by requiring records of fiber weights and opinions from CONACS before any products (fiber, cloth or articles) can be legally either imported or exported from Peru.

The processing of vicuña fiber and the commercialization of vicuña products involves a joint venture “Association in Participation” between SNV and the consortium that won the right to commercialize the vicuña fiber. We

understand that the consortium has the unilateral right to acquire fiber at least through 2002 (Lichtenstein et al. 1999b). The SNV provides the fiber to the consortium which includes a Peruvian company that fabricates cloth from the vicuña fibers, which is then sent to an Italian manufacturing plant where luxury clothing items are produced. A second Italian firm then handles the promotion and marketing of the finished vicuña products (Hoces 1997, pers. comm.). CONACS supervises production to guarantee that all articles will contain 100 percent vicuña fiber. This process is designed to maximize the financial returns from the vicuña fibers; the profits from the final sales are distributed, under the supervision of CONACS and INRENA, to the campesino participants. Additionally, a percentage of the final sale price on the completed product goes to the campesino communities. As of 1997, raw vicuña fiber was selling for approximately \$500 per kilogram in Peru; current prices are around \$300 per kilogram (Lichtenstein et al. 1999b, Sahley et al. submitted).

The vicuña populations of Pampa Galeras National Reserve and Nuclear Zone, Pedregal, Osconta and Sawacocha (Province of Lucanas), Sais Picotani (Province of Azangaro), Sais Tupac Amaru (Province of Junin), and Salinas Aguada Blanca National Reserve (Provinces of Arequipa and Cailloma) were transferred from CITES Appendix I to II in 1987 at COP6. All remaining Peruvian vicuña populations were transferred to Appendix II in 1994 at COP9, effective February 16, 1995. All exports are limited to cloth fabricated from the 3,294 kg (7,260 lbs) of stored fiber present in November 1994 or from the fiber stores obtained from the recent authorized shearing of live animals or from dead animals listed in the vicuña registry, and items made from that cloth and to certain luxury handicrafts and knitted articles produced in Peru. The reverse side of cloth and cloth products must bear the logo adopted by countries signatory to the Vicuña Convention and the words "VICUÑA-PERU-ARTESANIA." This trademark will also occur on all luxury artisan products and knitted articles of vicuña fiber. Peru also plans to add to the produced articles, a seal or identification tag with codes indicating the origin of the product, the assigned trademark or label and the CITES permit number. All specimens not meeting any of the above conditions are considered to be included in Appendix I and subject to the prohibition against primarily

commercial trade, and other CITES Appendix I requirements.

The vicuña is not considered to be endangered by inadequate regulatory mechanisms in Peru. The species is, however, considered to be threatened by this factor, especially in light of the potential threats posed by Supreme Decree No. 053-2000-AG.

E. Other Natural or Manmade Factors Affecting Its Continued Existence

Vicuña are susceptible to extended periods of drought. Vicuña populations in Argentina may have actually declined during the later 1990's as a result of a prolonged drought. Drought conditions or extremely degraded ranges adversely impact vicuña by causing them to seek new habitats with the possible dissolution of some family groups, reductions in reproductive success, and perhaps increased mortality.

The great potential threat to the vicuña is that pelts can be easily obtained from poached animals and that the fiber industry may actually prefer the longer fibers that can be obtained by soaking and pulling hairs from pelts, rather than the clipped hairs from legal fleeces (Canedi 1997, pers. comm). The vulnerability of the vicuña to political instability is well documented. For example, vicuña populations in Peru were estimated at about 80,000 in 1988, but were reduced to low levels from 1989 to 1993 when vicuña fiber from poached animals was used to help finance guerilla activities.

The vicuña represents one of the most significant natural economic resources available in many Andean highlands that have limited human populations with limited economic opportunities at their disposal. Indigenous people fully realize that a poached vicuña can be used once but that the managed, live-sheared vicuña can be used repeatedly (Wheeler and Hoces 1997). Assigning the responsibility of vicuña management to campesino ranchers and/or campesino communities and granting those people the opportunity to legally realize economic gains from their management and protection efforts represents a significant bio-political decision.

Distinct Vertebrate Population Segment

The definition of "species" in section 3(15) of the Act includes ". . . any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature." Distinct vertebrate population segments for purposes of listing under the Act are defined in the Service's February 7, 1996, Policy Regarding the Recognition of Distinct Vertebrate Population

Segments (DVPS) (61 FR 4722). For a population to be listed under the Act as a distinct vertebrate population segment, three elements are considered: (1) The discreteness of the population segment in relation to the remainder of the species to which it belongs; (2) the significance of the population segment to the species to which it belongs; and (3) the population segment's conservation status in relation to the Act's standards for listing (*i.e.*, is the population segment, when treated as if it were a species, endangered or threatened?). International borders may be used to delineate discrete population segments where there are significant differences in: (1) The control of exploitation; (2) management of habitat; (3) conservation status; or (4) regulatory mechanisms on each side of the border (61 FR 4722). Discrete population segments can also be defined by marked physical, physiological, ecological, or behavioral separation from other populations of the same taxon.

We recognize the vicuña population of Ecuador as a distinct vertebrate population segment for purposes of listing under the ESA. The vicuña population of Ecuador was established only recently, beginning in 1988, through the introduction of animals translocated from Argentina, Bolivia, and Chile. This introduction was accomplished within the multilateral frameworks of both the Vicuña Convention and the CITES Convention (Ecuador is a Party to both). To date, we are unaware of any verified palaeontological, archaeological, anthropological, or historical evidence that the vicuña ever occurred in Ecuador prior to this introduction. According to Wheeler (1995), vicuña remains have not been found in either palaeontological deposits (Hoffstetter 1986 cited in Wheeler 1995) or archaeological sites (Miller and Gill 1990 cited in Wheeler 1995) in Ecuador. There may be some vague references in Spanish colonial documents, but these are not verified. Despite the recent origin of its population, for purposes of consideration under the Act, we consider Ecuador to be part of the range of the species.

The vicuña population of Ecuador is geographically isolated (disjunct) and separate from other vicuña in Argentina, Bolivia, Chile, and Peru. Ecuador's population remains listed in CITES Appendix I, and plans to commercially utilize the species in the future appear to be uncertain. Furthermore, the Parties to the Vicuña Convention view this as a separate population, worthy of special recovery efforts. Although the countries of the region that are Parties to the

Vicuña Convention view this as an "experimental" population, that should not be seen in the domestic U.S. context of experimental populations under the Act, where criteria and definitions differ. For these reasons, the Ecuadoran population of vicuña satisfies the discreteness and significance criteria of the DVPS Policy, and, therefore, merits treatment as a distinct population segment under the ESA. Furthermore, because of its small size, recent origin, and uncertain management and protective status, we continue to believe that this population warrants a classification of endangered under the Act.

In contrast to the rather strict requirements for listing entities (species, subspecies, or distinct vertebrate population segments) under the ESA, CITES has retained a degree of flexibility in the listing process through the use of annotations. There is no specific requirement that populations be delimited by national borders or marked biological differences. CITES Article I defines a species as "any species, subspecies, or geographically separate population thereof", and different populations of a species can be listed in different CITES Appendices (although it is generally discouraged). Thus, it has been possible to transfer sub-national populations of vicuña in Argentina, Bolivia, and Chile from Appendix I to Appendix II. This accounts for the lack of perfect symmetry between populations determined to be threatened and those currently listed in Appendix II of CITES.

Summary of Findings

The Service finds that the vicuña is a highly vulnerable species whose populations are generally increasing over a large area of the high Andean tablelands of Argentina, Bolivia, Chile and Peru. The current status of the vicuña appears attributable to decisions made in the range countries to protect and, more recently, to sustainably use this species with direct involvement of local people and communities. Laws, decrees, and infrastructures have been or are being developed to help local people manage and protect the species. In return the local people are beginning to receive, or appear likely to receive, socio-economic benefits from that management that will benefit both individuals and their communities. The management and protection accorded to the vicuñas, by local people in cooperation with governmental entities, provides the best opportunity for the vicuña to survive as a species and as a very important part of the Puna and Altoandina ecosystems.

In developing this rule, we have carefully assessed the best available biological and conservation status information regarding the past, present, and future threats faced by vicuña. Criteria for reclassification of a threatened or endangered species, found in 50 CFR part 424.11(d), include extinction, recovery of the species, or error in the original data for classification. Available information indicates that the vicuña is not endangered (in danger of extinction) in all or a significant portion of its range. The population of Ecuador, a distinct population segment under the Act in accordance with the Service's Policy on Distinct Vertebrate Population Segments, remains endangered. Available information further indicates that the vicuña remains threatened throughout its range by: (1) The present or threatened destruction, modification, or curtailment of its habitat or range; (2) previous or current overutilization; and (3) the possibility of inadequately controlled harvest pressures, including poaching, in Argentina, Bolivia, Chile, and Peru. A reclassification of the vicuña from endangered to threatened under the Act will, with the attendant special rule, allow carefully regulated commerce of vicuña products into the United States. Funds generated in range countries by opening the United States market should help provide the resources necessary to enhance the conservation and management of the species.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Act include recognition of conservation status, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies and groups, and individuals.

Section 7(a) of the Act, as amended, and as implemented by regulations at 50 CFR part 402, requires Federal agencies to evaluate their actions that are to be conducted within the United States or on the high seas, with respect to any species that is proposed to be listed or is listed as endangered or threatened and with respect to its proposed or designated critical habitat, if any is being designated. However, because the vicuña is not native to the United States, no critical habitat is being proposed for designation with this rule. Currently, with respect to vicuña, no Federal activities, other than the issuance of CITES re-export certificates, are known that would require conferral or

consultation. According to the CITES Convention, Appendix-II species need only a CITES export permit issued by the exporting country for their importation into another country. However, because of its listing as endangered under the Act, the importation and exportation of specimens of *Vicugna vicugna* presently require an Endangered Species Act permit issued by the Division of Management Authority. Consequently, a consultation with the Division of Scientific Authority is currently required before the Division of Management Authority can issue any import or export permit for vicuña.

Section 8(a) of the Act authorizes the provision of limited financial assistance for the development and management of programs that the Secretary of the Interior determines to be necessary or useful for the conservation of endangered species in foreign countries. Sections 8(b) and 8(c) of the Act authorize the Secretary to encourage conservation programs for foreign endangered species, and to provide assistance for such programs, in the form of personnel and the training of personnel.

Sections 4(d) and 9 of the Act, and implementing regulations found at 50 CFR part 17.31, (which incorporate certain provisions of 50 CFR part 17.21), set forth a series of prohibitions and exceptions that generally apply to all threatened wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take (within U.S. territory or on the high seas), import or export, ship in interstate commerce in the course of a commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to employees or agents of the Service, other Federal land management agencies, the National Marine Fisheries Service, and State conservation agencies (50 CFR part 17.21(c)(3) and part 17.31(b)).

Permits may be issued to carry out otherwise prohibited activities involving threatened wildlife species under certain circumstances. Regulations governing permits are codified at 50 CFR part 17.32. With regard to threatened wildlife, a permit may be issued for the following purposes: scientific research, enhancement of propagation or survival, zoological exhibition or education, incidental taking, or special purposes consistent with the Act. All such permits must also be consistent with the

purposes and policy of the Act as required by section 10(d). Such a permit will be governed by the provisions of § 17.32 unless a special rule applicable to the wildlife (appearing in § 17.40 to § 17.48) provides otherwise. Because a special rule is being promulgated concurrently with this reclassification, permits will be issued under section 10 only for bona fide scientific research contributing to conservation of the species in the wild (e.g., blood samples for genetic analyses or tissue samples for disease diagnosis). No additional permits are required as a result of this rule; rather, this rule removes restrictions.

Threatened species are generally covered by all prohibitions applicable to endangered species, under 50 CFR part 17.31. We may, however, develop special rules if deemed necessary and advisable to provide for the conservation of the species. The special rule described here for § 17.40 allows commercial importation to and re-exportation from the United States of certain specimens from threatened populations of vicuña which are also listed in CITES Appendix II. Importation could be restricted in the future from a particular country of origin or re-export if that country has been identified as a subject to a recommended suspension of trade by the CITES Standing Committee or at a CITES Conference of the Parties. Interstate commerce within the United States and re-export of legally imported vicuña parts will not require U.S. threatened species permits.

Effects of This Rule

This rule revises § 17.11(h) to reclassify *Vicugna vicugna* from endangered to threatened in Argentina, Bolivia, Chile and Peru to reflect more accurately the present status of this species.

Description of the Special Rule

The intent of the special rule is to enhance the conservation of the vicuña through support for properly designed and implemented programs for vicuña conservation throughout their native range. The special rule is intended to support appropriate conservation efforts of the four range states of Argentina, Bolivia, Chile, and Peru, by encouraging certain of their management programs that allow utilization of vicuña fiber from live-sheared animals, with benefits accruing to local communities.

We believe that the most effective results, both for conservation of vicuña and production of economic benefits for local people, are likely to be achieved with management of wild, free-ranging

populations, such as the systems being undertaken in certain parts of Peru and in Bolivia. We continue to have concerns about captive management systems for vicuña, especially the extensive captive management program being undertaken in much of Peru, because the conservation value and socioeconomic benefits of captive management have yet to be demonstrated as sustainable over the long term (Lichtenstein 1999, Sahley 1999). Our conservation concerns relate to issues of disease transmission, genetic effects, impacts on population dynamics and social organization, and habitat impacts. We believe that the best opportunity for captive management is provided by the management recommendations of the South American Camelid Specialist Group, and we believe that demonstration of the long-term biological and economic viability of captive management will require (1) further research by trained ecologists, geneticists, sociologists, and economists, and (2) an effective monitoring program for the captive management systems.

These concerns notwithstanding, we believe that progress has been and is being made, and that range countries should be allowed time to demonstrate the conservation value and related socioeconomic benefits of the management system or systems they have adopted. From a law enforcement perspective, it would be difficult if not impossible for the United States to allow importation of fiber only from wild management systems and exclude fiber from captive management systems, especially if both wild and captive management occur in a single country. Thus, the special rule pertains to all threatened, Appendix II populations. The special rule has provisions that are intended to encourage range countries to demonstrate the conservation value of the management system or systems they have adopted. The special rule: (1) *Requests* range countries wishing to export to the United States to submit a country-wide Management Plan for vicuña; (2) *requires* range countries to submit an annual report documenting the status of vicuña populations and implementation of management programs in each country; (3) calls for the Service to conduct a biennial review of range country management programs to determine if those programs are effectively achieving conservation benefits for the vicuña; and (4) can be administratively suspended if the conservation or management status of threatened vicuña populations change in one or more range countries such that

continued recovery of vicuña populations is compromised.

The special rule allows commercial importation and re-exportation into/ from the United States of certain products (raw, unprocessed vicuña fiber or cloth, or items made from that fiber, including luxury handicrafts and knitted articles) that are properly identified, and have accompanying valid, legal CITES Appendix II export permits or re-export certificates. Under the special rule, a threatened species permit for individual shipments would not be required under 50 CFR part 17 for these products only. To be imported, vicuña products must originate in populations that are listed both as threatened under the Act and in Appendix II of CITES. Vicuña fiber and products from Appendix I populations, as well as any live vicuña, embryos, gametes, and tissue samples, are not covered. Their importation would still require a threatened species permit, a CITES Appendix I import permit (issued by the U.S.), and an Appendix I export permit.

We are aware that there have been poaching and illegal trade problems with this highly valuable species in the past, and any loss of control would seriously undermine the conservation programs of the range countries, thereby potentially jeopardizing vicuña populations. Therefore, we will not allow the import of vicuña products from threatened, Appendix II vicuña populations from countries of origin or countries of manufacture or re-export that have been determined by the CITES Conference of the Parties or the CITES Standing Committee not to be effectively implementing the Convention. Specifically, the special rule prohibits importation from countries of export or re-export that have either (1) failed to designate a Management Authority or Scientific Authority, or (2) have been identified by the CITES Conference of the Parties, the CITES Standing Committee, or in a Notification from the Secretariat as a country from which Parties should not accept CITES permits. Trade restrictions or a suspension of trade can be placed on a range country if the Service administratively determines that the conservation or management status of vicuña in that country has changed such that continued recovery of vicuña populations is compromised as a result of one or more of the following factors:

(A) A change in range country laws or regulations that lessens protection for vicuña;

(B) A change in range country management programs that lessens protection for vicuña;

(C) A documented decline in wild vicuña population numbers;

(D) A documented increase in poaching of vicuña;

(E) A documented decline in vicuña habitat quality or quantity; or

(F) Other natural or man-made factors affecting the species' recovery. The decision will be made by the Service's Division of Scientific Authority, and the Service will inform range countries and re-exporting countries if a suspension goes into effect, and will post the decision on our web site.

For vicuña and vicuña products, there is no personal effects exemption in the special rule, since the CITES listings (and associated annotations) specifically do not allow for a personal effects exemption. The specific removal of the personal effects exemption for Appendix II populations was adopted by the CITES Parties at the request of range countries, to assist their enforcement efforts. Therefore, items purchased by travelers overseas or personal items owned by people moving to the United States will require appropriate CITES export documents (permits or re-export certificates) from countries of export or re-export, to be imported legally into the United States. This is based on analysis of the annotation for the vicuña in the official CITES Secretariat list of the CITES Appendices, and dialogue with the CITES Secretariat in Geneva. It is also based on domestic law of the four range countries, which all require CITES export documents, even for items purchased by tourists. The vicuña annotations in the CITES Appendices are unique, and require that only certain products be exported from the range countries, under very strict conditions. In Argentina, articles bought by a foreign tourist at a government-authorized store can be exported as personal accompanying baggage only after a CITES export permit has been obtained. In countries of re-export as well, very strict controls are required. The items manufactured from vicuña fiber are very expensive luxury articles, and illegal trade poses a serious risk to the species and the conservation programs of the range states. Furthermore, all range countries require CITES permits for export of vicuña products, and do not recognize any personal effects exemption. It would be inappropriate and unfair to require export documents from range countries but not from countries of manufacture (re-export). Therefore, all tourist souvenirs or other personal items require a CITES export document from the country of export or re-export in

order to be legally imported into the United States. We have clarified this in the final special rule, which may have been unclear in the proposed rule.

All vicuña products must comply with all product annotations as described in the CITES Secretariat's official annotated list of the CITES Appendices (available at <http://www.cites.org>). If those product annotations change at a future meeting of the Conference of the Parties (COP) to CITES, the Service will have to re-evaluate its 4(d) rule. The criteria for determining if a vicuña product is properly identified are drawn directly from the CITES Appendices, and the product annotations for vicuña contained therein. For cloth and cloth products, the only products that can be imported are those where the reverse side of cloth and cloth products bear the logo adopted by countries signatory to the *Convenio para la Conservación y Manejo de la Vicuña* (Vicuña Convention), and the words "VICUÑA—(Country of Origin)" (country of origin of the vicuña fiber in the products—Argentina, Bolivia, or Chile) or "VICUÑA—PERU—ARTESANIA" (for Peru only). For finished vicuña products (including luxury handicrafts and knitted articles) and any bulk shipments of raw fiber, the product or shipment must have a seal or identification tag with codes describing the origin of the vicuña product, the trademark or label ("VICUÑA—(Country of Origin)" or "VICUÑA—PERU—ARTESANIA") and the CITES export permit number. These criteria for properly identified vicuña products are contained in the CITES Appendices themselves. The product annotations were proposed by the range countries and adopted by the CITES Conference of the Parties. Therefore, we are aligning U.S. importation practices with those approved by the CITES Parties, in order to facilitate effective conservation of the vicuña in range countries, and the enforcement and management efforts of those countries.

The Monitoring of Vicuña

Requirements of the Act for the monitoring of species also apply to foreign species (see final rule "Endangered and Threatened Wildlife and Plants; Removal of Three Kangaroos From the List of Endangered and Threatened Wildlife" published in the **Federal Register** on March 9, 1995; 60 FR 12887). Monitoring programs are conducted to ensure that species continue to fare well after delisting or downlisting occurs. These monitoring programs frequently include population and species distribution surveys, assessment of the condition of

important habitats for the species, and assessment of threats identified as relevant to the species. We depend on range countries to monitor their vicuña populations. To assist in our efforts to monitor vicuña populations, we will ask range countries to submit a Management Plan (voluntary), and will require range countries to submit annual reports (mandatory).

Management Plan. Governments of range countries wishing to export specimens of vicuña to the United States for commercial purposes (Argentina, Bolivia, Chile, and Peru) will be requested to provide the Service with a Management Plan that specifies how vicuña are currently being managed and will be managed in that country during the period after this rule takes effect. The voluntary submission of a Management Plan will help the Service in its biennial review of country management programs (discussed in the section immediately below). For each range country, the following information should be provided in its Management Plan:

(A) Recent data on vicuña distribution, populations numbers, and population trends for the entire country, and for specific protected areas, and a detailed description of the methodology used to obtain such estimates;

(B) A description of research projects currently being conducted related to the biology of vicuña in the wild, particularly its population biology, habitat use, and genetics;

(C) A description of national and/or provincial laws and programs relating to vicuña conservation, in particular those laws and regulations related to harvest and use of the vicuña, and export of vicuña parts and products;

(D) A description, including approximate acreage, of land set aside as natural reserves or national parks that provide protected habitat for the vicuña;

(E) A description of programs to prevent poaching, smuggling, and illegal commercialization of the vicuña;

(F) A description of current management and harvest (or "sustainable use") programs for wild populations of the vicuña, including: the location and population size of all wild populations being managed for sustainable use; the harvest management practices being used for each population; current harvest quotas for wild populations, if any; protocols for vicuña translocations undertaken as part of the use program; the specific financial costs of and anticipated revenues to be generated by the sustainable use program; and the anticipated conservation benefits that

will result from the sustainable use program;

(G) A description of current management and harvest (or “sustainable use”) programs for captive and so-called “semi-captive” populations of the vicuña, including: the number and location of all captive and “semi-captive” populations; the size in hectares of each captive enclosure and the number of vicuña maintained therein; protocols for vicuña translocations undertaken as part of the use program; the anticipated financial costs of and revenues to be generated by the sustainable use program; and the anticipated conservation benefits that will result from the sustainable use program (information on management of captive and “semi-captive” populations must be separate from that provided for management of wild populations).

Annual Report. Governments of range countries wishing to export specimens of vicuña to the United States for commercial purposes (Argentina, Bolivia, Chile, and Peru) will be required to provide the Service with an annual report that includes the most recent information available on the conservation and management status of the species, gathered by the respective range countries to fulfill their CITES scientific and management requirements. Failure to submit an annual report could result in a restriction on trade or a total suspension of trade in specimens of vicuña from the range country concerned. For each range country, the following information should be provided in the annual report:

(A) A description of any revisions to the management program, especially any changes in management approaches or emphasis;

(B) New information obtained in the last year on vicuña distribution, population status, or population trends, for the country as a whole or for specific protected areas, and a detailed description of the methodology used to obtain such estimates;

(C) Results of any research projects concluded in the last year on the biology of vicuña in the wild, particularly its population biology, habitat use, and genetics, and a description of any new research projects undertaken on the biology of vicuña in the wild, particularly its population biology, habitat use, and genetics;

(D) A description of any changes to national and/or provincial laws and programs relating to vicuña conservation, in particular those laws and regulations related to harvest and use of the vicuña, and export of vicuña parts and products;

(E) A description of any changes in the number or size of natural reserves or national parks that provide protected habitat for the vicuña;

(F) A summary of law enforcement activities undertaken in the last year, and a description of any changes in programs to prevent poaching, smuggling, and illegal commercialization of the vicuña;

(G) A description of the current management and harvest (or “sustainable use”) programs for wild populations of the vicuña, including: any changes in the location and population size of wild populations being managed for sustainable use; any changes in the harvest management practices being used for each population; any changes in current harvest quotas for wild populations, if any; any changes in protocols for translocations undertaken as part of the use program; a summary of the specific financial costs of and revenues generated by the sustainable use program over the last year; and a summary of documented conservation benefits resulting from the sustainable use program over the last year (*e.g.*, revenues returned to conservation activities as a result of the program, demonstrated reductions in poaching as a result of the program, or improved habitat conditions as a result of the program);

(H) A description of current management and harvest (or “sustainable use”) programs for captive and so-called “semi-captive” populations of the vicuña, including: any changes in the number and location of all captive and “semi-captive” populations; any changes in the size (ha) of each captive enclosure and the number of vicuña maintained therein; any changes in protocols for translocations undertaken as part of the use program; a summary of the financial costs of and revenues generated by the sustainable use program over the last year; and documented conservation benefits resulting from the sustainable use program over the last year (*e.g.*, revenues returned to conservation activities as a result of the program, demonstrated reductions in poaching as a result of the program, or improved habitat conditions as a result of the program). Information provided for captive and “semi-captive” populations must be clearly separate in the report from information related to wild populations;

(I) Export data for the last year.

The first annual report will be due one year after the special rule goes into effect, with subsequent reports due every year on the anniversary of that

date. All information provided by the range countries will be available for public review.

The Service will conduct a review every two years, using information in the annual reports and any other pertinent information it has available, to determine whether range country management programs are effectively achieving conservation benefits for wild vicuña populations. Based on information contained in the annual reports, the Service may administratively restrict or suspend trade from a range country if it determines that the conservation or management status of threatened vicuña populations in a range country has changed, such that continued recovery of the vicuña population in that country may be compromised. Trade restrictions or suspension may result from one or more of the following factors:

(A) A change in range country laws or regulations that lessens protection for vicuña;

(B) A change in range country management programs that lessens protection for vicuña;

(C) A documented decline in wild vicuña population numbers;

(D) A documented increase in poaching of vicuña;

(E) A documented decline in vicuña habitat quality or quantity; or

(F) Other natural or man-made factors affecting the species' recovery.

Effects of the Special Rule

Consistent with sections 3(3) and 4(d) of the Act, this rule also contains a special rule that amends 50 CFR 17.40 to allow commercial importation and re-exportation, under certain conditions, of raw (unprocessed) vicuña fiber or cloth, or items made from that fiber, including luxury handicrafts and knitted articles, without a threatened species import permit otherwise required by 50 CFR part 17, if all requirements of the special rule and 50 CFR part 13 (General Permit Procedures), part 14 (Importation, Exportation, and Transportation of Wildlife), and part 23 (Endangered Species Convention—CITES) are met.

The reclassification of vicuña to “threatened” and the accompanying special rule allowing commercial trade into the United States for certain products without a threatened species import permit does not end protection for the species. To be imported, vicuña products must originate in populations that are listed both as threatened under the Act and in Appendix II of CITES, and be accompanied by valid, legal CITES Appendix II export permits or re-export certificates that are consistent with all requirements of both CITES and

the laws and regulations of the exporting country concerned.

Commerce with the United States in vicuña products will only be allowed with countries that have designated both a CITES Management Authority and Scientific Authority, and have not been identified by the CITES Conference of the Parties, the CITES Standing Committee, or in a Notification from the CITES Secretariat, whereby Parties are asked not to accept shipments of specimens of any CITES-listed species from the country in question. This restriction will also apply to intermediary countries, when vicuña products are exported for manufacturing and other purposes, and the finished products are re-exported from intermediary countries to the United States. The U.S. Management Authority will provide on request a list of those countries that have not designated both a Management Authority and Scientific Authority, or that have been identified as a country from which Parties are asked not to accept shipments of specimens of any CITES-listed species. The list will be published on our web site (<http://international.fws.gov>).

This special rule does not cover the importation of live vicuña, vicuña embryos, gametes, or tissue samples, because these specimens remain in Appendix I. Furthermore, we discourage most such imports, which could be used to establish populations outside the species' natural range, because we believe that such operations would undermine the conservation efforts of range countries to manage and sustainably utilize this species. Imports of blood or tissue samples for bona fide scientific research contributing to the conservation of the species in the wild could be allowed with the necessary CITES Appendix I import and export permits and a threatened species permit issued under section 10.

Trade restrictions or a trade suspension can be placed on a range country if the Service's Division of Scientific Authority administratively determines that the conservation or management status of vicuña in that country has changed, such that continued recovery of vicuña populations is compromised, as a result of one or more of the six factors listed in the preceding section (e.g., a change in range country laws or regulations that lessens protection for vicuña). This provision gives the Service ability to react effectively to potential conservation concerns that may emerge, such as dramatic increases in poaching in some areas, or changes in laws or regulations that appear to be detrimental to the species in the wild, or the lack of

submission of the required annual report.

The Service's Division of Scientific Authority will conduct a review every two years, using information in the annual reports, to determine whether range country management programs are effectively achieving conservation benefits for wild vicuña populations. Based on information contained in the annual reports, the Service may restrict or suspend trade from a range country if it determines that the conservation or management status of threatened vicuña populations in a range country has changed, such that continued recovery of the vicuña population in that country may be compromised. Trade restrictions or suspension may result from one or more of the six factors listed in the preceding section (e.g., a change in range country laws or regulations that lessens protection for vicuña).

In our judgment the protective regulations set out in the final special rule contain all of the measures that are necessary and advisable to provide for the conservation of the vicuña in Argentina, Bolivia, Chile, and Peru.

National Environmental Policy Act

We have determined that Environmental Assessments and Environmental Impact Statements, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the ESA. A notice outlining our reasons for this determination was published in the **Federal Register** on October 25, 1983 (48 FR 49244).

References Cited

- Bonacic, C. 2000a. Sustainable use of the vicuña (*Vicugna vicugna*) in Chile. Paper presented at the 16th Annual Camelid Medicine, Surgery, and Reproductive Conference. Ohio State University, Columbus, Ohio. March 22–25, 2000.
- Bonacic, C. 2000b. Dinamica poblacional de la vicuña (*Vicugna vicugna*) y determinación de la capacidad de carga en la Provincia de Parí-Chile. Pages 93–101 in Manejo sustentable de la vicuña y el guanaco. Edited by B. Gonzalez, F. Bas, C. Tala, and A. Iriarte. SAG, Pontificia Universidad Católica de Chile, Fundación para la Innovación Agraria.
- Cajal, J. L. 1992. Argentina: The Vicuña. A portion of Chapter 2. Argentina in: South American camelids: An Action Plan for their Conservation. IUCN/SSC South American Camelid Specialist Group.
- Canedi, A. A. 1995. Evaluación de las poblaciones de vicuña en la Reserva Olaroz-Cauchari. Pages 63–69 in *Bioecología y uso sustentable de las poblaciones de vicuñas en la Provincia de Jujuy-Argentina*. Edited by A. A. Canedi.
- Canedi, A. A. and P. S. Pasini. 1996. Repoblamiento y bioecología de la vicuña silvestre en la Provincia de Jujuy, Argentina. pp. 7–24 in *Animal Genetic Resources Information*. United Nations Environment Programme. Food and Agriculture Organization of the United Nations. Rome.
- Canedi, A. A. 1997. Responses to questions regarding the status of vicuña in Argentina. Personal communication with Dr. Henry L. Short, NFWF contractor. August 25, 1997.
- CITES. 1997a. Proposal: Transfer of the vicuña (*Vicugna vicugna*) population in the province of Jujuy (21 47'S—24 38'S; 64 80'W—67 19'W) from Appendix I to Appendix II and of the populations in semi-captivity in the provinces of Jujuy, Salta, Catamarca, La Rioja, and San Juan, with the sole purpose of permitting international trade in fibre from live vicuña, in cloth and manufactured products, under the trademark "VICUÑA—ARGENTINA." Submitted for consideration at CITES COP 10 by Republic of Argentina.
- CITES. 1997b. Proposal: Transfer of the populations (*Vicugna vicugna*) of the Conservation Units: Mauri-Desaguadero (17 30'S—18 30'S and 68 30'W—69 30'W), Ulla Ulla (14 45'S—15 25'S and 69 00'W—69 20'W) and Lipez-Chichas (21 30'—23 00'S and 66 20'W—68 10'W) from CITES Appendix I to Appendix II for the sole purpose of allowing international trade of fabrics made with fiber from the shearing of live animals under the trademark "VICUÑA—BOLIVIA." Submitted for consideration at CITES COP 10 by Republic of Bolivia.
- CITES. 2000a. Proposal: Transfer of all populations of vicuña (*Vicugna vicugna*) from Appendix I to Appendix II of CITES, for the exclusive purpose of allowing international trade in cloth made from wool sheared from live animals under the name "VICUÑA—BOLIVIA." Submitted for consideration at CITES COP 11 by the Republic of Bolivia.
- CITES. 2000b. Proposal: Deletion of the zero quota for trade in cloth made from wool from the shearing of live animals under the name Vicuña -Bolivia originating in populations listed in CITES Appendix II in accordance with a decision taken at the 10th meeting of the Conference of the Parties in Harare (Zimbabwe), 9 to 20 June 1997. Submitted for consideration at CITES COP 11 by the Republic of Bolivia.
- CNVB. 1996. Censo Nacional de la Vicuña en Bolivia: Gestión 1996. Dirección Nacional de Conservación de la Biodiversidad.
- Comisión Regional de la Vicuña. 1994. Acciones de las Provincias Argentinas para su Conservación y Uso Sustentable. Republica Argentina, Salta. 25 pp.
- DNCB (Dirección Nacional de Conservación de la Biodiversidad, Unidad de Vida Silvestre). 1997. Responses to questions regarding the status of vicuña in Bolivia. Personal communication with Dr. Henry L. Short, NFWF contractor. August 1997.
- Galaz, J. 1997. Personal communication with Dr. Henry L. Short, NFWF contractor. August 1997.
- Government of Ecuador. 1999. Report of the Vicuña Reintroduction Project in Ecuador.

Report to the 19th Meeting of the Technical Committee of the Vicuña Convention.

Hoces, D. 1992. Chapter 5. Peru. South American camelids: An Action Plan for their Conservation. IUCN/SSC South American Camelid Specialist Group.

Hoces, D. 1997. Responses to questions regarding the status of vicuña in Peru. Personal communication with Dr. Henry L. Short, NFWF contractor. September 1997.

Hoffstetter, R. 1986. High Andean mammalian faunas during the Plio-Pleistocene. Pages 218–245 in: High altitude tropical biogeography. Edited by F. Vulleumier, and M. Monasterio. Oxford University Press.

INFOL. 1985. Memoria VI Reunion Ordinaria de la Comision Tecnico Administradora del Convenio para la Conservación de la Vicuña. La Paz, Bolivia.

Iriarte, A. 2000. Normativa legal sobre conservacion y uso sustentable de vicuña y guanaco en Chile. Pages 209-221 in Manejo sustentable de la vicuña y el guanaco. Edited by B. Gonzalez, F. Bas, C. Tala, and A. Iriarte. SAG, Pontificia Universidad Católica de Chile, Fundación para la Innovación Agraria.

Lichtenstein, G., E. F. Oribe, M. Grieg-Gran, and S. Mazzucchelli. 1999a. Is community wildlife management a sustainable alternative for local communities in South America? Submitted to Proceedings of 2nd International Wildlife Management Congress.

Lichtenstein, G., E. F. Oribe, M. Grieg-Gran, and S. Mazzucchelli. 1999b. Analisis del Manejo Comunitario de Vicuñas en el Peru. Evaluando el Eden: Manejo Comunitario de Vida Silvestre. Instituto Internacional de Medio Ambiente y Desarrollo-America Latina.

Miller, G. R., and A. R. Gill. 1990. Zooarchaeology at Pirincay, a Formative Period site in highland Ecuador. J. of Field Archaeology 17: 49–68.

Molina, J. I. 1782. Saggio Sulle Storia Naturale del Chile. Bologna.

Rabinovich, J. E., A. F. Capurro, and L. L. Pessina. 1991. Vicuña use and the biometrics of an Andean peasant community in Catamarca, Argentina. Pages 337–358 in Neotropical wildlife use and conservation. Edited by J. G. Robinson and K. H. Redford. University of Chicago Press, Chicago, IL.

Rebuffi, G. 1995. Modelo de criadero de vicuñas con aprovechamiento racional de la especie. Pages 73–76 in Bioecología y uso sustentable de las poblaciones de vicuñas en la Provincia de Jujuy-Argentina. Edited by A. A. Canedi.

SAG (Servicio Agrícola y Ganadero). 1997. Responses to questions regarding the status of vicuña in Chile. Personal communication with Dr. Henry L. Short, NFWF contractor. August 22, 1997.

Sahley, C. T. 1999. Propiedad comunitaria y esquila en vivo de vicuñas en el Peru: Evaluando la sostenibilidad biologica y economica. Pages 77-82 in: Manejo y conservacion de fauna silvestre en America Latina. Edited by T. G. Fang, O. L. Montenegro, and R. E. Bodmer.

Sahley, C. T., J. T. Vargas, and J. S. Valdivia. submitted. Community ownership and live shearing of vicuñas in Peru: Evaluating management strategies and their sustainability. A chapter in: Latin American Wildlife Management. Edited by R. Bodmer, J. Fragoso, and K. Silvius.

Sarno, R. J., L. Villalba, C. Bonacic, B. Gonzalez, B. Zapata, S. J. O'Brien, and W. E. Johnson. submitted. Phylogeography and subspecies assessment of vicuñas in Chile and Bolivia utilizing mtDNA and microsatellite markers: Implications for vicuña conservation and management. Submitted to Conservation Genetics.

Thomas, O. 1917. Preliminary diagnosis of new mammals obtained by the Yale National Society Peruvian expedition. Smithsonian Miscellaneous Collection 68.

Torres, H. 1992. Chapter 1. Background, objectives, and limitations of the Action Plan. South American camelids: An Action Plan for their Conservation. IUCN/SSC South American Camelid Specialist Group.

Vila, B. 1999. La silvestria de las vicuñas, una característica esencial para su conservacion y manejo. Presented at South American Camelid Conference, Cuzco, Peru.

Wheeler, J. C. 1995. Evolution and present situation of the South American Camelidae. Biol. J. Linnean Society 54: 271–295.

Wheeler, J. C., M. Fernandez, R. Rosadio, D. Hoces, M. Kadwell, and M. W. Bruford. 2000. Genetic diversity and management implications for vicuña populations in Peru: The results of Grant #N251 of the Darwin Initiative for the Survival of Species. Final Report.

Wheeler, J. C., and D. Hoces. 1997. Community participation, sustainable use, and vicuña conservation in Peru. Mountain Research and Development 17(3): 283-287.

Author

The primary author of this rule is Dr. Kurt A. Johnson, Division of Scientific Authority, U.S. Fish and Wildlife Service, Washington, DC 20240 [703–358–1708].

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulations Promulgation

Accordingly, the Service hereby amends part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201-4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. Section 17.11(h) is amended by revising the entry for the vicuña, under “Mammals”, on the List of Endangered and Threatened Wildlife to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
MAMMALS							
*	*	*	*	*	*		
Vicuña	<i>Vicugna vicugna</i>	Argentina, Bolivia, Chile, Ecuador, Peru.	Entire, except Ecuador.	T	3, 724	NA	17.40 (m)
Do	Do	Do	Ecuador	E	3, 724	NA	NA
*	*	*	*	*	*		*

3. Paragraph (m) is added to § 17.40 and reads as follows:

§ 17.40 Special rules—mammals.

* * * * *

(m) *Vicuña*. This paragraph (m) applies to the threatened vicuña (*Vicugna vicugna*).

(1) *What activities involving vicuña are prohibited by this rule?* (i) *Appendix*

I populations. All provisions of § 17.31 (a) and (b) and § 17.32 apply to vicuña and vicuña parts and products originating from populations currently listed in Appendix I of the Convention

on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

(ii) *Import, export, and re-export.* Except as provided in paragraph (m)(2) of this section, you must not import, export, or re-export, or present for export or re-export without valid CITES permits vicuña or vicuña parts and products originating from populations listed in Appendix II of CITES.

(iii) *Commercial activity.* Except as provided in paragraph (m)(2) of this section, you must not sell or offer for sale, deliver, receive, carry, transport, or ship in interstate or foreign commerce in the course of a commercial activity vicuña or vicuña parts and products from populations listed in Appendix II of CITES.

(iv) It is unlawful for any person subject to the jurisdiction of the United States to commit, attempt to commit, solicit to commit, or cause to be committed any acts described in paragraphs (m)(1)(ii)-(iii) of this section.

(2) *What activities involving vicuña are allowed by this rule?* You may import, export, or re-export, or place in interstate or foreign commerce, vicuña products, consisting of either raw fiber or items and cloth made, or partially made, from vicuña fiber, without a threatened species permit issued according to § 17.32 only when the provisions in parts 13, 14, and 23 of this chapter and the requirements of the applicable subparagraphs of this paragraph (m)(2) have been met:

(i) *Import, export, or re-export.* You may import, export, or re-export into or from the United States vicuña products, consisting of either raw fiber or items and cloth made, or partially made, from vicuña fiber originating in a country authorized under paragraph (m)(4) of this section, provided the following conditions are met:

(A) The vicuña product must comply with all CITES product annotations as given in the CITES Secretariat's official list of the CITES Appendices, and all imports, exports, and re-exports must be identified as follows:

(1) *Cloth and cloth products:* The reverse side of cloth and cloth products must bear the logo adopted by countries signatory to the "Convenio para la Conservación y Manejo de la Vicuña", and the words "VICUÑA-(Country of Origin)" (where country of origin is the name of the original exporting country where the vicuña fiber in the products originated, either Argentina, Bolivia, or Chile) or "VICUÑA-PERU-ARTESANIA" (for Peru only).

(2) *Finished vicuña products (including luxury handicrafts and knitted articles) and any bulk shipments*

of raw fiber: The product or shipment must have a seal or identification tag with codes describing the origin of the vicuña product, the trademark or label ("VICUÑA-(Country of Origin)" (where country of origin is the name of the original exporting country where the vicuña fiber in the products originated, either Argentina, Bolivia, or Chile) or "VICUÑA-PERU-ARTESANIA" (for Peru only), and the CITES export permit number, where country of origin is the name of the original exporting country where the vicuña fiber in the products originated.

(B) The shipment must be accompanied by a CITES permit or certificate that contains the following information:

(1) The country of origin, its export permit number, and date of issuance.

(2) If re-export, the country of re-export, its certificate number, and date of issuance.

(3) If applicable, the country of last re-export, its certificate number, and date of issuance.

(C) At the time of import, for each shipment covered by this exception, the country of origin and each country of re-export involved in the trade of a particular shipment must have designated both a CITES Management Authority and Scientific Authority, and have not been identified by the CITES Conference of the Parties, the CITES Standing Committee, or in a Notification from the CITES Secretariat as a country from which Parties should not accept permits. A listing of all countries that have not designated both a Management Authority and Scientific Authority, or that have been identified as a country from which Parties should not accept permits is available by writing: The Division of Management Authority, ARLSQ Room 700, 4401 N. Fairfax Drive, U.S. Fish and Wildlife Service, Arlington, VA 22203. The list is also on our website (<http://international.fws.gov>).

(ii) *Noncommercial accompanying baggage.* The conditions described in paragraph (m)(2)(i) of this section also apply to noncommercial personal effects in accompanying baggage or household effects from Appendix II populations. Such items are treated the same as Appendix II commercial shipments, and must comply with the same documentary requirements. All other noncommercial personal effects in accompanying baggage or household effects require both a CITES Appendix I permit and a permit as described in § 17.32.

(iii) *Embryos, gametes, blood, other tissue samples, and live animals.* This special rule does not apply to embryos,

gametes, blood, or other tissue samples of vicuña, or to live vicuña. Import of such specimens requires an import permit as described in § 17.32 in addition to CITES Appendix I import and export permits, and will be issued only for bona fide scientific research contributing to conservation of the species in the wild.

(3) *When and how will the Service inform the public of additional restrictions in trade of vicuña?* Except in rare cases involving extenuating circumstances that do not adversely affect the conservation of the species, we will issue an information notice that identifies a restriction on trade in specimens of vicuña addressed in this paragraph (m) if any of the following criteria are met:

(i) The country is listed in a Notification to the Parties by the CITES Secretariat as lacking a designated Management or Scientific Authority that issues CITES documents or their equivalent.

(ii) The country is identified in any action adopted by the Conference of the Parties to the Convention, the Convention's Standing Committee, or in a Notification issued by the CITES Secretariat, whereby Parties are asked not to accept shipments of specimens of any CITES-listed species from the country in question.

(iii) The Service's Division of Scientific Authority administratively determines that the conservation or management status of threatened vicuña populations in a range country has changed, such that continued recovery of the vicuña population in that country may be compromised, as a result of one or more of the following factors:

(A) A change in range country laws or regulations that lessens protection for vicuña;

(B) A change in range country management programs that lessens protection for vicuña;

(C) A documented decline in wild vicuña population numbers;

(D) A documented increase in poaching of vicuña;

(E) A documented decline in vicuña habitat quality or quantity; or

(F) Other natural or man-made factors affecting the species' recovery.

(iv) A listing of all countries that have not designated both a Management Authority and Scientific Authority, or that have been identified as a country from which Parties should not accept permits is available by writing: The Division of Management Authority, ARLSQ Room 700, 4401 N. Fairfax Drive, U.S. Fish and Wildlife Service, Arlington, VA 22203. The list is also on

our website (<http://international.fws.gov>).

(4) *What must vicuña range countries do in order to be authorized under the special rule to export to the United States?* (i) *Annual Report.* Range country governments (Argentina, Bolivia, Chile, and Peru) wishing to export specimens of vicuña to the United States will need to provide an annual report containing the most recent information available on the status of the species, following the information guidelines specified below. The first submission of a status report will be required as of July 1, 2003, and every year thereafter on the anniversary of that date. For each range country, the following information should be provided in the annual report:

(A) A description of any revisions to the management program, especially any changes in management approaches or emphasis;

(B) New information obtained in the last year on vicuña distribution, population status, or population trends, for the country as a whole or for specific protected areas, and a detailed description of the methodology used to obtain such information;

(C) Results of any research projects concluded in the last year on the biology of vicuña in the wild, particularly its population biology, habitat use, and genetics, and a description of any new research projects undertaken on the biology of vicuña in the wild, particularly its population biology, habitat use, and genetics;

(D) A description of any changes to national and/or provincial laws and programs relating to vicuña conservation, in particular those laws and regulations related to harvest and use of the vicuña, and export of vicuña parts and products;

(E) A description of any changes in the number or size of natural reserves or national parks that provide protected habitat for the vicuña;

(E) A summary of law enforcement activities undertaken in the last year, and a description of any changes in programs to prevent poaching, smuggling, and illegal commercialization of the vicuña;

(F) A description of the current management and harvest (or “sustainable use”) programs for wild populations of the vicuña, including: any changes in the location and population size of wild populations being managed for sustainable use; any changes in the harvest management practices being used for each population; any changes in current harvest quotas for wild populations, if any; any changes in protocols for

translocations undertaken as part of the use program; a summary of the specific financial costs of and revenues generated by the sustainable use program over the last year; and a summary of documented conservation benefits resulting from the sustainable use program over the last year;

(G) A description of current management and harvest (or “sustainable use”) programs for captive and so-called “semi-captive” populations of the vicuña, including: any changes in the number and location of all captive and “semi-captive” populations; any changes in the size (ha) of each captive enclosure and the number of vicuña maintained therein; any changes in protocols for translocations undertaken as part of the use program; a summary of the financial costs of and revenues generated by the sustainable use program over the last year; and documented conservation benefits resulting from the sustainable use program over the last year (information on captive and “semi-captive” populations must be separate from that provided for wild populations); and

(H) Export data for the last year.

(ii) The Service’s Division of Scientific Authority will conduct a review every 2 years, using information in the annual reports, to determine whether range country management programs are effectively achieving conservation benefits for the vicuña. Failure to submit an annual report could result in a restriction on trade in specimens of vicuña as addressed in paragraph (m)(3) of this section. Based on information contained in the annual reports and any other pertinent information it has available, the Service may restrict trade from a range country, as addressed in paragraph (m)(3) of this section, if it determines that the conservation or management status of threatened vicuña populations in a range country has changed, such that continued recovery of the vicuña population in that country may be compromised. Trade restrictions may result from one or more of the following factors:

(A) A change in range country laws or regulations that lessens protection for vicuña;

(B) A change in range country management programs that lessens protection for vicuña;

(C) A documented decline in wild vicuña population numbers;

(D) A documented increase in poaching of vicuña;

(E) A documented decline in vicuña habitat quality or quantity; or

(F) Other natural or man-made factors affecting the species’ recovery.

Dated: May 21, 2002.

Craig Manson,

Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 02–13342 Filed 5–29–02; 8:45 am]

BILLING CODE 4310–55–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 222 and 223

[Docket No. 020523129-2129-01; I.D. No.052202A]

RIN 0648–AQ06

Sea Turtle Conservation; Shrimp Trawling Requirements

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Temporary rule; request for comments.

SUMMARY: NMFS is imposing, for a 30-day period, additional restrictions on shrimp trawlers in offshore Atlantic waters west of 77° 57.5' W. longitude (approximately Cape Fear, NC) and north of 30 N. latitude (just north of St. Augustine, FL). Shrimp fishermen operating in this area are required to use turtle excluder devices (TEDs) with escape openings modified to exclude leatherback turtles and are prohibited from fishing at night between 1 hour after sunset and 1 hour before sunrise. NMFS is taking this action because we have determined that higher than normal shrimping effort, particularly long tows conducted at night, and the use of less efficient TEDs by some shrimpers are the causes of extraordinarily high mortality and strandings of sea turtles that are listed as endangered or threatened. This action is necessary to reduce mortality of listed sea turtles incidentally captured in shrimp trawls.

DATES: This action is effective from May 24, 2002 through June 24, 2002.

Comments on this action are requested, and must be received by June 24, 2002.

ADDRESSES: Comments on this action should be addressed to the Chief, Endangered Species Division, Office of Protected Resources, NMFS, 1315 East-West Highway, Silver Spring, MD 20910.

FOR FURTHER INFORMATION CONTACT: Bob Hoffman, (727) 570–5312, or Barbara A.