

The 'sustainable use' of vicuna in Argentina: local and international interests

Desmond McNeill (Centre for Development and the Environment, University of Oslo)

**Gabriela Lichtenstein (Instituto de Geografia, Facultad de Filosofia y Letras,
Universidad de Buenos Aires/INAPL)**

Paper presenter:

Desmond McNeill (desmond.mcneill@sum.uio.no)

SUM (Centre for Development and the Environment)

POBox 1116 Blindern

0317 Oslo

Norway

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Introduction

The aim of this paper is to examine the forces that have, in recent years, shaped policies concerning the management of the vicuna in Argentina. The main emphasis will be on the various political and economic forces, but account will also be taken of ecological, biological and socio-cultural factors. Special focus will be on the issue of the choice between captive management and wild management, and the conflicting perspectives and interests of the different parties at international, national and local level that influence this choice.

The vicuna is a wild camelid that lives in the High Andes (others are the domesticated llama and alpaca, and the wild guanaco). Its fleece has one of the finest fibres in the world - with a current market price of about \$US 300 per kg. For this reason it has long been hunted, resulting almost in extinction in the middle of the last century¹. In 1975, however, it was classified as an endangered species and thereby protected under national and international laws.

¹ During the period of the Incas the vicuna was strongly protected. There is good evidence that the Incas were quite sophisticated in breeding methods to enhance fibre quality. The fibre was available only to the nobility, on pain of death. (Walton, 1844)

As a result, vicuna is one of the few success stories of wildlife conservation: so much so that the population has increased to a level where it is now considered appropriate to permit harvesting of the fibre of live shorn animals by local communities. Some vicuna populations have in the last few years been reclassified on the CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) list from Appendix I to Appendix II, i.e from 'endangered' to 'threatened'. The USA is a major potential market for the fibre, as well as being an influential actor in international wildlife policy. In 2002, the US also reclassified the vicuna from endangered to threatened under the ESA (Endangered Species Act) of 1973.

The paper discusses how wildlife policy has reflected environmental policies over time: how the conflict between economic growth and conservation led to the compromise (embodied in terms such as 'sustainable development' and 'sustainable use') of balancing local (though not necessarily indigenous²) interests against global (arguably northern) interests. It will also show how these policies, as applied to the vicuna, are now undergoing a crucial shift, as a result of the successful conservation programme. A central issue is the choice between the traditional 'wild management' and the more recent 'captive management'. Under the former system, vicuna roam wild and once a year they are rounded up and half of them are sheared.³ Captive management refers to a system of fully-fenced enclosures, where vicuna are kept permanently.⁴

The merits of captive management have now become of central concern. Is it economically viable? Does it successfully satisfy the twin objectives of biodiversity conservation and promoting the wellbeing of the local people? These issues are taken up, but not wholly resolved, in the recent report from the US Department of the Interior, Fish and Wildlife Service (FWS, 2002) concerning the reclassification of vicuna from endangered to threatened. The report of the FWS is important both directly (because it is the key advisory body to the US government), and indirectly, because the views of the US and its advisers will in turn have a major influence on other actors.

The paper draws largely on primary data from Argentina, concerning the economics of captive management. It also draws on data from Bolivia, Chile and Peru under the collaborative research project MACS in which the two authors are involved.⁵

The Vicuna: from Protection to Sustainable Use

² The interpretation of 'indigenous' is problematic, as discussed below.

³ This 'rounding up' is obviously not a simple procedure. It takes some time and involves a large number of people. It is traditionally known as a 'chaku' and has been practised for centuries. In Peru, it has become a tourist attraction. Individual vicuna are sheared only once every two years.

⁴ The system varies somewhat, from that in Argentina of "semi-domestic vicuna that are maintained in of a few hectares" to Peru, where the enclosures are up to 1,000 hectares.

⁵ This major inter-disciplinary project (Manejo Sostenible de Camelidos Silvestres) is funded by the EU INCO-DEV programme and coordinated by Macaulay Land Use Research Institute, Scotland.

(<http://www.macaulay.ac.uk>). It involves collaboration between researchers in four Latin American countries and several European countries.

The vicuna was included in Appendix I of CITES in 1975, which thereby prohibited trade in vicuna products. As the population began to increase, with successful conservation measures, modifications were made to this ruling, with some populations being transferred to Appendix II at subsequent COPs (Conference of the Parties):

- certain populations in Chile and Peru in 1987;
- the remaining populations in Peru in 1994;
- certain populations in Argentina and Bolivia in 1997;
- certain populations in Argentina, Bolivia and Chile 2002.

These allowed the resumption of trade, under carefully controlled conditions. In USA, however, which is both a major market for vicuna products and an influential force in international wildlife policy, there existed a stricter measure, under the ESA. A separate decision had, therefore, to be made by the United States. In September 1999, the Department of the Interior (Fish and Wildlife Service) proposed for consideration a reclassification of certain vicuna populations from endangered to threatened. In May 2002, having obtained evidence from a number of sources, they concluded that such a reclassification should indeed be made – for Argentina, Bolivia, Chile and Peru.⁶ A central issue in this debate was the choice between captive and wild management. And the case of Argentina was particularly controversial, for reasons we shall examine.

The report notes that the high value of vicuna fibre, “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 vicuna fiber from live-shorn animals are substantially used to conserve and protect vicuna by enhancing the economic well-being of native people in the Andean highlands, and by linking that improved status directly to conservation and sustainable use of the vicuna and recovery of vicuna populations.” (FWS, 2002: 37697)

This very neatly summarises the slightly convoluted logic of the policy of ‘sustainable use’: a compromise policy designed in response to the conflicting pressures of economic growth and biodiversity conservation. This doctrine relates to the broader concept of ‘sustainable development’, which was placed squarely on the international agenda by the Brundtland Report “Our Common Future” and very effectively propagated at the United Nations Conference on Environment and Development in Rio in 1992. (WCED, 1987). ‘Sustainable development’ is a grand compromise. Stated simply, it seeks to satisfy the demands (mainly from the rich North) for environmental conservation, while at the same time responding to the perceived imperative of economic growth. (McNeill, 2000)

The heated debate which took place within the commission and at UNCED was paralleled within international organisations such as the IUCN (International Union for the Conservation of Nature). The dilemma for such organisations was particularly acute. They were established with the primary aim of conservation, but found it necessary to modify their position (or, at the very least their rhetoric). Some saw these as simply necessary political or pragmatic compromises, others as giving legitimate consideration to the needs of poor people in poor countries, who should not – the argument went – have to lose their livelihoods for the benefit

⁶ Ecuador was excluded. There is at present only a very small population of vicuna in this country (about 1300).

of rich people in distant lands. But the sustainable use policy was highly controversial, and seen by some as the abandonment of the core values of environmentalism. (Hoyt, 1994) It was associated also with the mindset of the bureaucrat and the economist. In the international debate, such a compromise by environmentalists was necessary in order to respond to pressures from powerful Third World countries. At local level, it was often a pragmatic solution to the problems of policing game parks. It has also been argued (e.g. in the case of Zambia) that it served the interests of powerful national forces. (Gibson, 1999)

But what, more precisely, does sustainable use mean? What is the logic behind it; and hence, how should it be put into practice? The broad intention is clear, although its precise interpretation is perhaps controversial. For some biologists, it is "a use that can be continued indefinitely". To the economist it may be interpreted as obtaining an optimal, or maximum, sustained yield.⁷ One of IUCN's more recent definitions of sustainable use is: "a dynamic process toward which one strives in order to maintain biodiversity and enhance ecological and socio-economic services recognising that the greater the equity and degree of participation in governance, the greater the likelihood of achieving these objectives for present and future generations" (IUCN SUSG 2001). This demonstrates how many (controversial) issues may be brought together in this single phrase.

We shall in this paper ignore the more technical discussion concerning carrying capacities and concentrate on another problematic issue - of conflicting interests at different levels: local, national and international. The case of vicuna in Argentina offers a particularly enlightening example of the politics and economics of a sustainable use approach in a specific context.

To return to the quote from the US report, which sets out the sustainable use argument:

"The opportunity exists if proceeds from the sale of vicuna fiber from live-shorn animals are substantially used to conserve and protect vicuna by enhancing the economic well-being of native people in the Andean highlands, ..." (FWS, 2002: 37697).

There are two separate components to this argument. One is that if the vicuna is to yield a benefit then this should accrue to the native people (for their 'economic development'). The other is that revenue from vicuna fibre may then largely be used to conserve vicuna. Let us consider each in turn.⁸

It should be noted, by way of introduction, that these arguments are to some extent shaped by the origins of the international environmental debate, where concern for the environment and concern for the rights of indigenous people came to be closely linked. But at that level of generality the case was often not argued in any detail. It is, therefore, necessary, when the doctrine of sustainable use is being applied in a specific context, to examine the issue more carefully.

⁷ In the case of vicuna, the recent controversy over the transfer of 'excess' vicuna population in Peru exemplifies the difficulty of obtaining agreement among biologists and ecologists as to the 'carrying capacity' of an area. (Jewell and Holt, 1981)

⁸ It is not fully clear from the earlier quotation how the 'improved economic status' will be linked 'directly to conservation'; whether it is assumed that this will happen automatically (as the local people come to value the vicuna more highly), or whether some measures need to be taken to ensure that this occurs.

The argument for benefits to local people may be based either on moral or practical grounds. Both have some force. The moral argument may be based on historical grounds (that the vicuna are the 'birthright' of the indigenous people), or on more contemporary grounds: that this is one of the very few economic opportunities open to people in the High Andes. Another, and perhaps still more compelling argument is that it is the local people that bore the cost of vicuna conservation during the strict conservation stage, and are still doing so in the areas where use is not permitted. The cost is not only one of foregone opportunity, but also due to the competition between vicuna and domestic livestock for extremely valuable resources in the Puna: food and water. (People also claim that vicunas break their fences). It is they who must allow vicuna to feed in their properties and mingle with their livestock for the sake of their conservation.

The practical argument relates to the competence of the local people (with their special knowledge of the country and the vicuna), and to the problems of enforcing a conservation policy without the support of the people. If they benefit from conservation, they will have an incentive to take care of the vicunas instead of poaching or helping poachers.⁹

The Present Dilemma

In some areas the vicuna population has now been successfully increased to a level that allows it to be 'exploited'. This situation constitutes both an opportunity and a threat. It should be noted that Argentina is a rather special case, for two reasons. One is that most of the 'local people' in Argentina do not conform to the rather undefined category of 'indigenous people' favoured by policy-makers. (In the High Andes of Bolivia and Peru there is a very high proportion of Aymara and Quechua communities, this is not the case in Argentina). Another is that there are interests promoting a form of management that seems, at least to some, to be far removed from the concept of 'wildness'.

On September 8th, 1999, the US Fish and Wildlife Service published a 'proposed rule' for the reclassification of the vicuna. They invited comments by a deadline of Dec 7th 1999, and stated that public hearing requests must be received by Oct 25th 1999. An important role was played by their consultant Dr Short.¹⁰ The Final Rule was published on May 30th 2002.

What was particularly notable in the original Proposed Rule was that it explicitly excluded captive management in Argentina: ("except that the Appendix II semi-captive populations of Catamarca, Jujuy, La Rioja, and San Juan Provinces in Argentina are specifically excluded from the special rule until such time as their conservation benefit for wild vicuna populations has been demonstrated adequately."). The Final Rule, however, made no such exclusion for Argentina.

During the period following the publication of the proposed rule, a number of comments were received, from national and regional governments, from researchers and others. Far more of these related to Argentina (approximately 60) than for the other countries (3 re Chile, 2 re Bolivia, 2 re Ecuador and 'several' re Peru). This was perhaps not surprising in view of the

⁹ The extent of poaching, and of illegal trade in vicuna fibre is, of course, difficult to quantify, but seems to be significant. This issue is also referred to in the FWS report.

¹⁰ He was contracted to FWS by the National Fish and Wildlife Foundation. (FWS, 2002: 37698)

fact that Argentina's 'semi-captive' populations were specifically focused upon. This programme is promoted by INTA (Instituto Nacional de Tecnologia Agropecuaria), in collaboration with a private Argentinian company and it is therefore also not surprising that INTA was well represented among the comments, both qualitatively and quantitatively¹¹.

The report provides interesting insights not only into the differing interests of the actors involved, but also the somewhat contested role of the United States and its authority to impose its requirements on Argentina. Thus, the Government of Argentina argued that the proposed rule went beyond the provisions of CITES.

In response, the US noted that ESA is different from, and more demanding than, CITES;¹² Indeed, the US placed a high threshold on the preconditions for a special rule:

“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.” (37699)

And there was some debate as to what were reasonable requirements in terms of information provided by Argentina. Here, the consultant apparently backed Argentina:

“Finally, Dr Short felt that the Service should exercise restraint when demanding information from and making recommendations to range countries. The Service should only request information that is necessary for making a determination under the ESA.” (37698)

These quotations exemplify the important issue of the balance of power between (in this case) Argentina and USA with regard to wildlife policy. From the point of view of Argentina, the US requirements for information and reports, and acceptance of what they regard as suitable policy may be seen as an unjustified intrusion over the country's sovereignty. From the US point of view, two counter-arguments may be presented. One is that they are simply acting in accordance with a convention agreed by most countries of the world – including Argentina. To the extent that their demands go beyond CITES, they may argue that they have a sovereign right to ban trade in vicuna products unless certain conditions are met; and that it is up to Argentina to decide whether or not they wish to export vicuna products to the US.

This provides the backdrop for what is the main focus of this paper: the choice of what form of management to promote now that the exploitation of vicuna is allowed. This is not a simple, technical issue, but rather one in which the differing interests and perspectives of the various actors involved exert a considerable influence.

To impose a total ban on the hunting of vicuna, and on trade in vicuna products, is a very clear policy and one that was relatively easy to implement so long as government was operating

¹¹ The report notes: “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 vicuna populations provided y CEA INTA;” (FWS 2002: 37700)

¹² To quote...“CITES is an international convention, while the ESA is domestic legislation. ... The ESA has many provisions that are stricter than CITES...” (37699)

normally.¹³ The situation becomes more complex when, as is now the case, the total ban is to be relaxed. At this stage, the cracks begin to show in the prospective compromise between conflicting interests and perspectives at different levels. To simplify the analysis of these differing interests and perspectives, we may distinguish three levels – international, national and local; and three types of actor – government, NGOs and private sector.

International: this refers to all countries with an interest in the vicuna. The major divide is between producer and consumer countries. On the producer side we find Argentina, Bolivia, Chile, Peru and Ecuador.¹⁴ (In theory there might possibly be others in future, but these need not be taken into account at this stage). On the consumer side we have all countries, but especially the more affluent ones where a significant market for vicuna products exists.¹⁵

International Government: this refers to the collective view of states, as manifested in international laws and conventions. Policy here has been generally determined by the most powerful countries of the North. Aside from their technical advisers, they are influenced by both NGOs and private sector interests.

International NGOs: this refers to NGOs, mainly in Western countries, which have a significant influence over international policy. These may be both environmental NGOs and others (such as those promoting development), but in practice it is the former which have played a more significant role.

International private sector: this refers to private companies outside the region involved in the processing and sale of vicuna products. At present there are very few (e.g. in Italy) but in principle there could be more. The most important markets are in USA, Western Europe and Japan.

National government: this refers to the governments of Argentina, Bolivia, Chile, Peru and Ecuador. The interests of these countries are largely congruent, and they have on occasion acted in concert, for example in signing the 1979 Convention.¹⁶ But their approaches to vicuna management differ somewhat. There may be both competition and collaboration with regard to the processing and selling of vicuna fibre. It should also be noted that in some places the geographical borders between the countries are fairly porous. These governments are influenced by many different interests (as analysed in more detail below). On the one hand there are international pressures, and on the other local interests: whether from local government, the private sector or national NGOs.

National NGOs. These play a relatively less significant role than do international NGOs in the international arena. And some of them are linked, formally or informally, to international NGOs. They may be both environmental and ‘development’ NGOs.

¹³ The main exception to ‘normal government’ was Peru during the years of major civil unrest (the ‘Shining Path’ guerilla movement), when the vicuna population declined significantly.

¹⁴ As noted above, Ecuador has only about 1300 vicunas.

¹⁵ The interests of countries that export other types of fine fibre might also be of relevance, but these are beyond the scope of this paper.

¹⁶ “Convention for the Conservation and Management of the Vicuna”, signed in Lima on 20 December 1979, by Bolivia, Chile, Ecuador and Peru, and later also by Argentina.

National private sector. At present the vicuna 'industry' is minute. This category refers to private companies producing by 'modern' methods mainly for the export market, as opposed to handicrafts. In Argentina there is at present only one such company.

Local government: this refers to all sub-national levels within the five countries, but most specifically to those regions in the High Andes (most of Bolivia and much of Peru, but relatively little in Chile and Argentina). The category thus includes both state and district levels. It should be noted that in Argentina, with its federal system, the provinces are particularly powerful vis-a-vis national government.

Local NGOs: These are few, and exercise very little political influence.

Local private sector: This is a mixed category, referring to those who may directly benefit from the sale of vicuna fibre (whether they are organised on an individual or collective basis), and involved in the sale of either fibre or handicrafts produced from the fibre.

Having broadly distinguished the categories, we may now distinguish three major policy choices to be made.

Choice 1: Environmental conservation or unrestricted use?

This is the major choice to be made, which resulted, as noted earlier in the 'grand compromise' of sustainable development and, more specifically, the policy of sustainable use.

Choice 2. Wild or captive management?

This is the choice now facing Argentina (and the other Andean countries). It involves complex ecological, biological, social, economic and – ultimately – political considerations.

Choice 3. Individual or community management?

This is a more complex issue, for two reasons. First, because it relates closely to the question of ownership and rights of use of the vicuna; and second because the situation – both social and legal – differs considerably between the countries concerned.¹⁷ In Argentina, at least until now, only private management has been an option. (This issue links to choice 2. 'Wild management' cannot be undertaken by a single private rancher; but it might perhaps be undertaken by a cooperative of individuals).¹⁸

Having set out the main actors and the three choices, we may now present a simplified summary of the differing preferences.

Choice 1: Environmental conservation or unrestricted use?

The international government consensus, as manifested in CITES, earlier favoured conservation. This was actively promoted by international NGOs. The private sector and national and local government may, in principle, have favoured use – but given that the number

¹⁷ The vicuna is owned by the state in Bolivia, Chile and Peru and is *res nullius* in Argentina. In Peru, communities were given (restricted) property rights, and in Bolivia stewardship.

¹⁸ It may be relevant to note here that 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 resources in traditional ways." (FWS, 2002: 37710)

of vicuna had fallen almost to extinction it was in the interests of all but the most short-sighted to favour limits on hunting.

Preferences in 1975:

	Government	NGOs	Private Sector
International	Conservation	Conservation	(use)
National	(use)	(conservation)	(use)
Local	(use)	-	(use)

The question is, however, what should be the policy when extinction no longer threatens. The table below summarises the situation. Now, the private sector and national and local government clearly favour use. International (and perhaps national) NGOs still tend to favour conservation, but recognise that some use can and should be permitted. International government favours a compromise - sustainable use – whose interpretation is contested and somewhat unclear.

Preferences in 2002:

	Government	NGOs	Private Sector
International	Sustainable use	Conservation?	Use
National	Use	(conservation)	Use
Local	Use	-	Use

Choice 2. Wild or captive management?

There seems to be favour, at least in US Fish and Wildlife Service, for wild management. Other interests may have some influence, but at present it may be said that this is the US government position. This approach has been actively promoted by international and national environmental NGOs such as IUCN. The Argentine Government, both nationally and locally, favours captive management – though not opposed to wild management. The national private sector is open to either approach.¹⁹ Wild management usually involves whole communities working on communal lands with a community owned resource. This type of management is alien to individual producers in Argentina, where there is no tradition of communal wild management (related to Choice 3).

	Government	NGOs	Private Sector
International (US)	Wild	wild	wild (for green labelling)?
National	Both	(wild)	Both
Local	Both	? -	(either)

¹⁹ Their interest is in obtaining a good supply of fibre at a good price. Wild management will increase the (limited) amount of vicunas available to shear. If wild management increased local people's power (e.g to decide who to sell fibre to) this might alter their preference.

Choice 3. Individual or community management?

As noted above, this issue is more complex, and hence difficult to summarise in tabular form. There seems to be favour in US, to judge from the report of the Fish and Wildlife Service, for community management. And this view seems to be shared by NGOs. But precisely what this implies, especially in the Argentina situation, is rather unclear. The central concern appears to be, in practice, who are the beneficiaries. This is discussed below, where we examine more closely the concerns of national government in Argentina.

This brief analysis shows how there appears to be some correlation, in terms of preference, between the three issues. But it is not immediately obvious whether the overarching doctrine of sustainable use provides any guidance on the issue of wild vs. captive management, and individual vs. community management. What is apparent from the debate, however, is that both sides try and apply both the biological/ecological and the economic/social arguments in support of their case.

We shall here review the arguments before returning to the question of whether there is any guidance to be found in the original doctrine of sustainable use – or its more recent manifestations (such as ‘triple bottom line’ corporate responsibility).

The Biological/Ecological Arguments

We shall not seek to analyse the biological and ecological arguments in any depth in this paper. Suffice it so say that arguments and counter-arguments have been presented against the captive management approach, concerning the disruption of the natural social organization of vicunas, the inhibition of the genetic flow between populations, and other genetic consequences such as inbreeding, genetic drift, and artificial selection. Another argument used against captive management concerns stress and animal welfare, but this does not feature significantly in the report.

The Economic Arguments

A crucial issue – perhaps the crucial issue in political terms– appears to be the economic viability of captive management. But:

- it is unclear whether captive management is profitable;
- it is unclear what the implications are (for ‘local people’ and for conservation).

In the FWS report it states: “We do not have enough information to determine the exact financial return realized by individual ranchers ... but average income appears to be in the range US \$750 to \$1,100 per year per rancher. This may or may not constitute a substantial return, depending on the individual ranchers involved. It does not appear that any of the proceeds of sales ... are channeled into conservation programs ... “ (FWS, 2002: 37707)

The report also notes that both Lichtenstein and Sahley have assessed the economic viability of captive management (in Peru) and concluded that “the wild, free-ranging management model .. is economically more viable than the captive (corral) management model” (FWS, 2002: 37711)

On the basis of recently obtained data from INTA, the authors are in a position to make a well-informed assessment of the economic viability of the captive management model in Argentina. (See Annex). It appears, from these figures, that annual costs exceed annual revenues except under the most favourable assumptions (i.e. that there is no need for additional water supply or food supplement; and ignoring the costs of capital, and of labour for tending the vicuna). Wild management seems therefore to be the more viable option – unless conditions change very significantly.

To digress for a moment, it is interesting to note that this was apparently the case a few centuries ago. According to William Walton,²⁰ the Incas valued the vicuna very highly, but were content with wild management:

“The state of perfection to which the Incas had brought the two domesticated breeds of Andes sheep [llama and alpaca] naturally suggests the query, why, in the same provident spirit which guided their actions, they did not undertake the domestication of the vicuna, whose wool was always held in higher estimation than even that of the alpaca. The answer is obvious. The Peruvian emperors had no occasion to domesticate and bear the charge of breeding vicunas, even had it been practicable. By means of their periodical hunts, of which the early writers have left us ample descriptions, they had an economic mode of obtaining from the animal all that they wanted for their own clothing, and that of the privileged orders, besides providing a healthy and favourite amusement to their subjects, during which feats of dexterity were, in all probability, noticed and rewarded.” (Walton, 1844: 32)

If one replaces ‘the privileged orders’ with the super-rich, and ‘healthy and favourite amusement to their subjects’ with attractions for tourists and local people, the logic may still be valid today.

Returning to the present, one may ask if, as seems to be the case, captive management is not profitable then why is this approach favoured, by government and private sector.²¹ Is it possible that it is hoped that they will become profitable in the long-term? Or for other reasons? Without further research it is difficult to come up with conclusive answers. From the point of view of national private sector (the single firm) the current scheme may be the best available, though not ideal. For the local private sector (individual ranchers) it may turn out that their expectations of profit were ill-founded.²² And it must be recognised that “the government” is not a uniform, integrated whole. Interests and opinions may differ considerably not only between levels but also branches of government. Although INTA’s position in favour of their captive management operations is made clear from their presentation to the FWS, it is apparent that others in government favour an alternative (cooperative) system of captive management; and some indeed may favour wild management.

²⁰ Walton’s book urged the development of alpaca in Britain in the nineteenth century. He claimed that men’s ponchos woven from alpaca and vicuna wool were, at the time of writing, “sold at 700 dollars each”. (1844: 14)

²¹ It is not clear why the figures in the US Report quoted above differ so widely from those in the Annex, obtained from INTA. The most probable explanation seems to be that the former figures were of gross revenues, excluding costs, and that they related to a year in which the animals were sheared (which occurs only every two years).

²² Information obtained from ranch owners indicates that they believe that they need an initial stock of at least 120 vicunas (instead of 24), and many years of work to be able to make a profit.

Leaving aside, for the moment, the question of whether or not the captive management model is economically viable, the question arises what are the implications? More specifically: Who benefits? And what is the likelihood of each model furthering the objective of conservation? This relates to the third choice: 'private or community/cooperative management'?

Whether one or the other model furthers the objective of conservation is not, however, independent of the practice of the Argentine government (and perhaps also the United States). One or both of these may, by the use of policy instruments, substantially affect the outcome.

Broadly there are three instruments of intervention: laws (allowing, or more commonly banning certain activities); economic instruments (taxes, incentives, investments); and education/information (seeking to inform or persuade). One can envisage, for example, two very different approaches. At one extreme, one would allow and perhaps economically support private sector, captive management – and then tax the profits and use these to promote vicuna conservation. At the other, one would encourage and assist community wild management, and use educational programmes to inform local people about the merits of vicuna conservation. Between these two is a range of other possibilities. The purpose of noting these two is not to recommend one or another, but to demonstrate that the context is not neutral: it is difficult to judge the merits of wild or captive management independently of the application of such instruments of policy.

The issue is still further complicated when one takes account also of alternative processing and marketing of the fibre. There exist, in effect, two very different markets: the (very) high value, high quality market, and the local handicraft market. The former yields far higher prices, but a relatively smaller share to local people.

The report expresses some reservations about the merits of captive management.²³ For example:

“The production of vicuna fiber under captive conditions is said to benefit the individual campesino rancher, and is said to be growing in popularity.... We are concerned ... that economic gains realized from sales of vicuna fiber may be used by individual ranchers to increase the size of their domestic livestock herds, thus increasing grazing pressure ...” (37708)

“We do not understand how captive herds can meet the demand for vicuna fiber for local craft use.” (37700)

“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.” (37708) (The report notes that only about 20 individual ranchers will benefit).

Thus the economic debate becomes closely linked to the social debate: who benefits?

²³ The report is clearly opposed to more extreme models: “We do not support or advocate the development of commercial ranching operations for vicuna, 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.” (FWS, 2002: 37699)

The Social Arguments: ‘Local People’

The report makes fairly frequent reference to people, though the terminology varies somewhat. For example (italics not in the original):

“... enhancing the economic well-being of *native people* in the Andean highlands ...” (37697)

Re comments received: “These commenters primarily emphasized the economic benefits that would accrue to *poor residents* of the Argentina Puna ...”²⁴ (FWS, 2002: 37700)

Re the limitations of the INTA model: “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.” (FWS, 2002: 37700)

Two observations would seem to be in order. First, this apparently important group (however ill-defined) is not at all well represented among those who submitted their views and comments. Second, the definition of the group seems to vary – from the geographic (‘local’), socio-economic (‘poor’) or even, perhaps, ethnic (‘indigenous’, ‘native’). With regard to the last point it should again be noted that while in Bolivia and Peru there is a very high proportion of Aymara and Quechua communities, this is not the case in Argentina

It is therefore most unclear – both who the ‘local people’ are, and what they want. (In relation to the second point, as noted above, their views do not appear to have been sought in the FWS Report).

The report refers to the view of Grupo Especialista en Camelidos Sudamericanos (GECS) of the IUCN/SSC that captive management could be compatible with conservation under certain conditions, including: “(3) that *local human communities* have an active participation in tasks and also in revenues emerging from vicuna use;... “ (FWS, 2002: 37707)

All this seems to suggest a positive attitude in the report towards benefits accruing to local people, possibly (but not necessarily) because this is likely to foster conservation. Yet the final conclusion of the report seems to take a more cautious line, focusing solely on vicuna conservation.

The Recommendation of the FWS Report

The report concludes:

“This Special Rule [Argentina, Bolivia, Chile and Peru] is intended to support appropriate conservation efforts of the four range states by encouraging certain of their management programs that allow utilization of vicuna fiber from live-sheared animals, with benefits accruing to local communities” (37718)

²⁴ Although some breeding ranch owners are “poor residents”, it appears that most are not. In many cases, they own large amounts of land; and they include leading figures in the local community.

The report states a preference for wild management “such as the systems being undertaken in certain parts of Peru and in Bolivia” and expresses continued concern about captive management, on grounds both of “conservation value and socioeconomic benefits”. Nevertheless it concludes that “range countries should be allowed time to demonstrate the conservation value and related socio-economic benefits 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 vicuna; (2) *requires* range countries to submit an annual report documenting the status of vicuna populations and implementation of management programs in each country ...”. (emphasis not in the original)

The information that “should be provided” in the Management Plan is set out in some detail, but makes little if any reference to the local people. Indeed, the report appears ultimately to back off this issue:

“While we appreciate and support the need to address the plight of poor residents of the Argentina Puna, the ESA is principally concerned with the conservation of threatened and endangered species in the wild”. (37700)

What does this tell us about the doctrine of sustainable use, as practised in this specific case? The initial ‘grand compromise’ of the sustainable use approach is based on a balance between conservation of species and maximising (possibly short-term) economic growth. The former is seen, at least by the South, as the concern primarily of the North. Economic growth is generally (though not universally) seen as a valid objective. But the consensus is based (explicitly or implicitly) on the idea that certain disadvantaged groups should be at least the primary beneficiaries – whether these are identified at ‘the poor’, ‘local people’, ‘indigenous people’ etc. The rhetoric also sometimes includes a preference for community organisation over private enterprise.

Some of these considerations are apparent in the arguments contained in the report. At the end of the day, however, the case is based solely on the implications of choices for the conservation of the vicuna. Preference for wild as opposed to captive management, and for community as opposed to private individual management, is made not for its own sake but on the basis of whether or not this promotes conservation. And since this is uncertain, the report determines that “range countries should be allowed time to demonstrate the conservation value and related socio-economic benefits of the management system or systems they have adopted”.

This is in part a pragmatic argument:

“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”.

Certainly it would be difficult, but it might be possible to build on experience in a number of countries with ‘socially responsible marketing’ - for example the case of coffee. (Robbins et al, 2000). Such an approach would be in keeping with the so-called ‘triple bottom line’ approach increasingly favoured, whereby private firms take responsibility not only for the standard

'bottom line' of profit for the shareholders, but also two others: environmental and social aspects. If the 'social' aim (of ensuring that poor people in the local area are those that benefit most from the resource) is given equal priority to conservation of the vicuna, then this could be achieved. It appears that this is not the case.

The final determination of the report seems to be chiefly based on interpretation of the law and the mandate of US. The fact that the social argument takes second place – and indeed ultimately falls out of the picture - might perhaps be attributed to the specific formulation of law itself, but it is surely a clear indicator of political priorities.

Conclusion

The vicuna provides an interesting case of the political economy of wildlife management, as policy shifts from total conservation to a more complex, and contested, sustainable use approach. The first stage, of total conservation, was extremely successful. The policy received widespread support internationally and nationally. If there was resistance at the local level, the policy was nevertheless relatively easy to implement. But we are now beginning to enter the next stage, of sustainable use. Here, the consensus begins to break down. National and local interests favour exploitation of the vicuna; and, in view of the fact that the species is no longer endangered, the international community also accepts this conclusion. The debate then shifts to what form of management is to be favoured: wild or captive. Here, international actors tend to favour wild management, while – in Argentina - national and local actors argue for both, for reasons largely of apparent economic benefit. The merits of the economic case for captive management are at best unproven. (And it is also unclear how the profitability of captive management relates to the incentives for conservation). But here an added dimension enters the picture: the potential beneficiaries. The original grand compromise of 'sustainable use' involved, at least implicitly, the assumption that the beneficiaries would be poor/local/indigenous people/communities. In the case of Peru and Bolivia this seems to be the case. But in Argentina the situation is very different. The FWS report, although giving some indications of the approach that it favours, concludes that it will not exclude captive management. In the argument leading up to this conclusion a central issue is whether benefit to local communities is seen as an end in itself, or a means to an end (the conservation of vicuna). It appears that the latter is the case and, in the final resort, 'the people' disappear from the picture.

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Annex: Economics of Captive Management for a typical ranch in Argentina (24 vicuna)

	US dollars
<u>Capital costs</u>	
Corral construction:	3,300 (a)
Labour	600
Transport (of vicuna)	30
Vicuna	- (b)
<i>Total:</i>	<hr/> 3,930

Annual recurrent costs

Vaccinations	240
Labour (shearing)	50 (c)
Water supply	360
Food supplement	720
Labour (tending livestock)	3,000
Interest on capital	- (d)
<i>Total:</i>	
Minimum:	290
Likely (optimistic)	1,370 (e)

Revenues

Sale of fibre	588 (f)
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Annual profit/loss

Maximum:	$588 - 290 =$ \$ 298 profit
Likely (optimistic):	$588 - 1,370 =$ \$ 782 loss

- (a) Ranges from US \$ 3,000 to 3,600. This is provided as an interest-free loan.
- (b) Vicuna are provided free, but an equivalent number of vicuna are to be returned at the end of the period. See note (d)
- (c) Shearing every two years, at a cost of US \$ 100.
- (d) The loan is interest-free; but, strictly, the economic cost of capital should be included. The same applies to the vicuna that are 'loaned' (except that, if the potential profit on captive management of vicuna is in fact negative, then they have no economic value for the purposes of this calculation).
- (e) 'Optimistic' assumes there is no cost of labour for tending livestock, and zero interest on capital.
- (f) Revenue every two years: 24 vicunas yield 0.25 kgs of fibre. 70% of the fibre ('vellon') is valued at \$250 per kg, and 30% ('garra' and 'barriga') at \$70 per kg.