Evaluating the barriers to effective breeding and husbandry in communal alpaca herds in Pucara, Peru.

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December 2015
The Nunoa Project is an NGO that has worked in southern Peru for over 15 years. The charity provides veterinary care and herd health advice to alpacas farmed by communities in the southern Andean Altiplano an area about 2 hours from the Bolivian border. The aim of this work is to help alleviate poverty in these communities and facilitate more buying and selling power by increasing the product (fibre) which is the main source of income for many families.

After acclimatising in Cusco, myself and a small team of international veterinary surgeons and students travelled by jeep into the mountains where we spent 15 days working with teams of handlers and farmers. When the road became too small or precarious to drive we walked, breathing hard uphill and in the high altitude, trying to keep up with our agile counterparts! We visited different communities on a rotational basis in the surrounding area. All of the communities had expressed interest in gaining technical advice particularly in shearing, disease control and breeding management.

Fig 1. Traditional hut used for cooking and sleeping with community housing behind at over 4,000 metres altitude, Pucara region, Peru.

The realities of many families here is a life of hard work and uncertain reward. Resources are scarce, but fortunately many farmers are keen to use new skills to improve their herds.

Challenges faced by farmers in keeping livestock include
1) Poor transport links and remote location
2) Lack of resources such as fencing, medicines and shearing equipment
3) High disease incidence
4) Lack of veterinary services
5) Lack of competitiveness or added value options at market
6) Limited access to education and further training

The economic pressures and fluctuations of alpaca wool farming are often outside the control of the farmers and as with many in the farming industry the bottom line is often dictated by
seasonal weather and frequency of disease outbreaks. However, giving small tools to help these families grow their herd is hugely beneficial. For example:

1. Vaccination Programme
A vaccination programme against *Eimeria* has been implemented in several herds. Local volunteers with an interest in animal husbandry - the “technicos” - are trained by the Nunoa Project to deliver the vaccine. In Nunoa, a nearby community that vaccination programme reduced cria mortality by half (Purdy, 2012)
The communities pay for the vaccine via a rotary fund.

2. Education and Teaching

![Fig. 2. Project Presentation in Pucarayllu.](image)

Teaching and training session are very important. For example, training farmers to body condition score animals and then record information will help to plan herd health in the future. Recording details of pregnancies, abortions, deaths are also made possible through ear-tagging.

![Fig.3. The Nunoa Project Team ear-tagging an alpaca.](image)
3. Elite Breeding Programmes

In participation farms an elite breeding programme has been set up. The Nunoa Project loans superior males to a small herd of selected females. This initiative hopes to inject new genetic potential into the herd and also breed better quality animals to maximise profits.

![Sharing per-cutaneous ultrasound images of female alpaca with farmers from Sapamccota for pregnancy diagnosis and vaccination before joining the elite herd.](image)  

The local farmers had a huge amount to teach us too. Lunches of soup, rice and yes, alpaca meat, were prepared to break the work at mid-day and the farmers clearly care very much for their livestock - sick crias were cared for inside and animals were known individually. We also offered veterinary treatment to individual animals, for example if animals were seen to be suffering from ectoparasite infection, abscesses, dental problems or eye infections.

![Treating a male alpaca for suspected Sarcoptic mange.](image)
Thanks and acknowledgements

Firstly, I would like to give my sincere thanks to Dr. Stephen Purdy, President of the Nunoa Project without whom none of this would have been possible and whose warmth and dedication is hugely inspiring. My thanks also to the communities who shared their homes and meals with us – to all the fantastic people I met on the way.

I am very grateful to VetWork through the BVA for providing crucial funding for this trip. Also the British Veterinary Camelid Society for their help and support. Finally, thanks to Alejandra and Coqui at the Llama Pack Backpacker for being so welcoming and such an incredible source of information. Thank you!

The Nunoa Project Team and Sapamccota Farmers