

Supplementary Information

High public good values for ecosystem service attributes of on-farm quinoa diversity conservation in Peru

Figure S1. Example of a choice set presented to respondents who were asked to choose Program 1, Program 2, or the Status Quo (see associated question below)

					
	Conservation of the Andean Landscape	Risk of Production Loss	% of Quinoa Varieties in Existence in 50 Years	Maintenance of Traditional Knowledge and Cultural Practices	Cost
Program 1	Stable	Medium	10%	✗	100
Program 2	↓	Low	50%	✓	5
Status Quo	↓	High	10%	✗	0

Associated question:

You will be shown several cards, each of which includes multiple conservation programs from which to choose. Each program has an associated cost that reflects the management costs. These costs represent a one-time donation. For each card, select the program that you would support given the associated costs.

Please consider the following when choosing a program from each card:

- Bringing about good conservation outcomes costs money;
- Quinoa varieties are not the only crop that may require further funding;
- There are other good causes that you may wish to support;
- You may have limited income and need to consider this cost in light of your other expenses

Figure S2. Information framing to prime people’s perceptions prior to answering the choice experiment questions (translated from Spanish)

NATIONAL IDENTITY:

1. Peru is one of the most important centres of crop diversity and domestication in the world. This diversity has a value that goes beyond Peruvian borders. Agricultural biodiversity is the basis of human survival and well-being – and through maintenance of biodiversity, Peruvians are protectors of the entire human race.
2. Quinoa originated in the mountains of Peru and has been important to Andean cultures for over 5,000 years. For the Inca, one of the most powerful civilizations on the American continent, quinoa was an important staple crop and was considered. They called it, the mother of all grains, or chisaya mama. Legend has it that the Incan emperor would ceremoniously plant the first quinoa seeds every year. It remains a prominent food source for their indigenous descendants, the Quechua and Aymara people.
3. Quinoa began to slip into obscurity after 1532 with the arrival of the Spanish. Conquistador Francisco Pizarro, in his resolve to destroy Incan culture, had quinoa fields destroyed. Thanks to the diversity of quinoa species, some varieties were able to survive high in the mountains. This allowed for quinoas reintroduction to the modern world. Now, we can benefit from the mother grain that our Incan predecessors left behind.
4. Maintaining traditional varieties of quinoa is important to maintain Peru’s culture. Biodiversity is a Peruvian cultural asset just like languages, archaeology, or food.

FOOD SECURITY:

Currently, the global population relies on 15 crops for 90% of all calories. By 2050, the agricultural industry will need to support 9 billion individuals and increase food production by 70 percent according to the Food and Agricultural Organization. Food security can be defined as: “when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

Table S1. Income categories across respondents from the three locations

Income category (US\$)	All	Puno	Cusco	Lima
0-121	15%	21%	0%	16%
122-258	27%	37%	23%	21%
259-606	40%	38%	36%	44%
607-1515	14%	5%	26%	18%
1516-3030	2%	0%	4%	3%
>3030	2%	0%	10%	0%

Table S2. RPL model results for both priming groups (FS: food security and NI: national identity) and the control group (no priming)

	Model for NI group (N = 164)			Model FS for group (N = 165)			Model for control group (N = 162)		
	Coefficient	SE	SD	Coefficient	SE	SD	Coefficient	SE	SD
Risk of production loss: Low	1.10***	0.22	1.52***	0.99***	0.18	1.10***	0.84***	0.19	1.22***
Risk of production loss: Medium	1.19***	0.25	2.02***	0.99***	0.18	1.03***	1.07***	0.23	1.56***
Percentage of Quinoa varieties still existing in 50 years: 90%	0.97***	0.22	1.83***	1.22***	0.20	1.59***	0.96***	0.21	1.70***
Percentage of Quinoa varieties still existing in 50 years: 50%	0.64***	0.18	1.07***	1.00***	0.19	1.20***	0.53***	0.19	1.32***
Maintenance of Traditional Knowledge and Cultural Practices	0.82***	0.19	1.73***	0.78***	0.16	1.31***	0.57***	0.16	1.25***
Conservation of the Andean Landscape: Increasing	0.92***	0.21	1.17***	0.89***	0.19	1.26***	0.72***	0.21	1.46***
Conservation of the Andean Landscape: Stable	1.06***	0.21	1.38***	0.93***	0.17	0.61***	0.73***	0.18	1.03***
One-off donation	-0.03***	0.004	0.04***	-0.04***	0.005	0.04***	-0.04***	0.004	0.04***
SQ	-0.30	0.22		-0.41**	0.21		-1.02**	0.22	
Loglikelihood	-1043.22			-1044.61			-998.14		
Pseudo R ²	0.28			0.28			0.30		

RPL = Random Parameter Logit; SQ = Status-quo

Significance at 1% (***), 5% (**) and 10% (*) levels