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New Life for Ancient Grains: Improving Livelihoods, Income and Health of Andean Communities

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Abstract

Agricultural biodiversity offers poor communities living in harsh environments options to improve their livelihoods, generate incomes, attain food security and enjoy better nutrition and health. Andean grains, such as amaranth, cañihua and quinoa have been used by local communities in Bolivia and Peru for centuries, and sustained them thanks due their high nutritional values and capacity to thrive in the harsh environmental conditions of the Andes. In spite of their significance though, several factors, including poor market competitiveness, lack of good planting material, laborious processing and a perception of traditional Andean grains as 'food for the poor,' have conspired against these crops causing them to fall into disuse. This paper presents preliminary results of an international effort initiated in 2001 aimed at enhancing the use of these crops using a holistic, inter-disciplinary and participatory approach and contribute to strengthening the reliance of communities over their traditional resources and knowledge. Highlights of this work include:

- 1. Participatory selection of higher yielding varieties, resistant to drought, frost, pests and diseases;
- 2. Reintroduction to farmers' fields of more than 40 varieties of quinoa and cañihua which had been lost;
- 3. Strengthening of *ex-situ* conservation through gap filling germplasm collections in centres of diversity and characterisation, multiplication and regeneration of hundreds of accessions;
- 4. Documentation and rescuing of local knowledge and institutionalisation of Diversity Fairs to promote exchange of knowledge and genetic material;
- 5. Development of better cultivation practices, low cost technology for threshing and removal of saponin meant to reduce drudgery and increase household consumption of crops for nutrition security;
- 6. Assessment of the nutritional variation of target crops in raw and processed products and awareness raising among urban consumers along with popularisation in restaurant chains;
- 7. Development of national quality standards for the commercialisation of target crops, allowing communities to enter into lucrative export markets;
- 8. Capacity building of community members over enhanced practices, value addition, nutrition and marketing, and development of collaborative platforms to scale up experiences and reinforce sustainability of use of target species.

Keywords: Andean grains, livelihoods, underutilised species, human nutrition, traditional knowledge

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