Smallholders in Peru are bringing to market a little-known orchard fruit. Tara is in great demand as an ingredient in the food industry and in the natural leather tanning process. But if tara is to bring prosperity to its growers, it needs to be farmed sustainably.

Text Peter Korneffel
t is Wednesday afternoon on a street corner in San Marcos, Cajamarca Province, the 'land of thorns' in northern Peru. The tin rollerblind of the house on the corner is open. Inside, young men gently slide heavy sacks off their shoulders onto the weighing scales. They relax a moment until the red numbers in the display have performed their light show. Then they heave the sacks onto their shoulders again and climb a wooden ladder onto the enormous loading bay of the articulated lorry from Lima. By nightfall the men will have climbed the ladder over 300 times. According to Isabel Machuca’s calculations, that is. The sales assistant at the local ‘Asociación de Productores de Tara’, the association of tara producers, sits on a sack near the entrance, keeping an eye on the loading process and the scales, a pocket calculator and notebook on her lap. ‘We’ll load around 23 tonnes of tara today. We’re currently getting around 120 soles per hundredweight. That’s not bad.’ 120 soles are equivalent to almost EUR 35. That means tara is fetching ten times the amount it was just a few years ago. Today it represents a new source of income for 20,000 small farming families in Cajamarca, where for decades the statisticians have been recording depressing poverty rates in excess of 50%. But in sleepy San Marcos, a small town that doesn’t make it into the pages of any tourist guide, something exciting is happening: thanks to tara, the livelihoods of people in Cajamarca are about to take a turn for the better.

Tara is an unprepossessing legume that grows in the Andes. At one time, there were whole forests of tara in western South America; today, these shrub-like trees border the fields of the potato and cereal farmers. The trees’ leaves are similar in shape to those of the ash, the blossom is small and white, the

**AT A GLANCE**

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Natural resources in the rural regions of Peru are rarely used sustainably and often destroyed. Other than agriculture, few alternative sources of income exist. The situation is exacerbated by climate change and natural disasters. 60% of the population are classed as living below the poverty line. On behalf of BMZ, GIZ supports Peruvian regional governments and authorities in developing and implementing strategies geared to the sustainable management of natural resources. In addition, in the regions of Piura, Cajamarca, Amazonas and San Martín, elements of smallholder production are being integrated into domestic and export markets. These measures have directly benefited 1,500 producers to date.

GIZ trains experts in the management of conservation areas and bio-corridors, in adaptation to climate change and in environmental communication and education.
pods – before they turn brown and dry – are bright orange. The seeds resemble lentils.

Maria Elena Rubio Leiba grows tara and is also one of ten buyers belonging to a farmers’ cooperative in the remote rural community of Limapampa. As late as the first week of October she is out bringing in the last tara harvest from her small plot of land. ‘In the past we used tara as a cure for flu, and the powdered seeds were known to heal open wounds,’ the farmer recalls. Using a long bamboo stick, she knocks the sun-dried pods to the ground. ‘My father was a shoemaker. He used tara to tan cow hides. Then one day we heard that people in San Marcos were buying tara.’ She bends down to gather hundreds of pods into her sheets. ‘So we used to borrow donkeys at harvest time. The paths here were terrible. In San Marcos they paid us 3 soles for a quarter of a hundredweight.’ Today tara is the only fruit Rubio Leiba sells. Everything else grown on the terraces of her ‘chacra’ is for use by herself and her family: potatoes, corn, yucca and whatever the small vegetable garden and solitary cow can produce. Maria Ana Rubio Cerdán is Rubio Leiba’s aunt. Already 78 years old, she lives in the neighbouring village of Paucamarca and can still remember in precise detail the formula used by her husband to tan leather: ‘First you have to buy lime. You wash the leather for a month until it is bleached. Then you make a brew using the tara. You soak the leather in this brew for two or three days. And then you repeat the process twice.’

Occasionally you still come across tara tanners in the area around San Marcos. One of the last is 67-year-old José Estanislao Melendez. He pulls a dubious-looking rag from an earthenware pot. He has his own recipe for extremely strong leather: ‘I leave the leather in the lime for eight days before giving it another eight days in the cold tara brew.’ Behind the house, he demonstrates his use for the tanned leather. Two oxen stand stoically on the edge of the field, joined at the shoulder by a heavy yoke to create a sturdy working team. And Melendez would be hard pressed to find a better way of securing the yoke to the horns of the oxen than with his own tanned leather straps. Leather straps for yoking a team of oxen is unlikely to create waves in today’s market. But the natural tannin found in tara pods is increasingly finding buyers among modern leather manufacturers. It is anti-allergenic, impregnating and biodegradable. As antioxidants, the tannins and gallic acid derived from them are also used as preservatives in food, suncreams and medicines. They also help build up the body’s natural immunity to viruses and bacteria. In addition, tara gum is a popular, neutral-tasting thickening agent used in food.

Preserving diversity, keeping traditions alive

On behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ), GIZ has been helping farmers’ cooperatives in the Cajamarca region to produce and market local products such as tara since 2007. One objective of the Peruvian-German Sustainable Rural Development programme is to use regional products sustainably, with a view to preserving not only biodiversity, but also knowledge of traditional processing methods.

The advisory services provided are embedded in the national Perübdiverso project, co-financed by the Swiss State Secretariat for Economic Affairs (SECO), with the Peruvian Ministry for Foreign Trade and Tourism as the lead executing agency. Perübdiverso aims to improve turnover and profitability for companies and producers that observe sustainability standards where the trade in local agricultural produce is concerned.

The project is also benefiting the tara growers in San Marcos. For example, it has been found that lacewing larvae offer a successful organic approach to combating butterfly parasites. Tree care and organic fertilisation at the start of the rainy season also help improve yields. And thanks to Perübdiverso, there are now even nurseries for the indigenous tara tree. Smallholders who have acted on advice provided by the producer association have already increased yields by 50%. And business is booming: importers for tara grown in Cajamarca are based in China, Argentina and Europe. The markets are showing dynamic growth. In 2010 Peru, the world’s only tara exporter, processed around 9,000

Tara trees belong to the same family as the carob. They form elongated pods in which the seeds are stored.
tonnes of the fruit and exported it in the form of tara gum and the transparent gel derived from the endosperm of tara seeds for USD 43 million. This gel or gum is in great demand and currently commands prices up to USD 6,800 per tonne.

Isabel Machuca from San Marcos knows this well. She is still using her pocket calculator to tot up the weight of sacks for the heavy cargo destined for Lima. The tara in the articulated lorry is now almost man-high. In the building diagonally opposite sits Victor Quiroz, sales manager of the tara producers’ association. Every truck that starts up its engine for the 18-hour trip across the Andes to Lima is music to his ears. But he is not entirely happy with the current arrangement, since the biggest turnover from this natural product is generated not by the producers but by the wholesalers and exporters in the capital.

‘There are only three companies worldwide that process tara on an industrial scale, and just one company that makes the special machinery required,’ Victor Quiroz explains. Until a few years ago, the producers in San Marcos operated their own tara mills. But it was not cost effective. ‘Today, although 2,000 families sell their tara to us, it usually amounts to a few sacks,’ says Victor Quiroz. ‘But we would have to be collecting 2,000 tonnes of tara to make it worthwhile buying our own machine to extract tara gum.’ The aim of the producer association is to cut out the middleman and export directly. Then the farming families of Cajamarca would enjoy much higher profits from their tara trees.

The tara producers have already succeeded in boosting profitability with the help of technical advisors from the Peruvian-German Sustainable Rural Development Programme. Now Victor Quiroz is looking forward to the next step: direct export. That would be a sensation for the entire region – and could become reality in just two or three years.

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