





The second Cordillera Highland Agricultural Resource Management Project (CHARMP 2)

This project builds on the first Cordillera Highland Agricultural Resource Management (CHARM) Project, which contributed to reducing poverty among indigenous peoples in the highlands of the Cordillera Administrative Region, also known as the Cordilleras, in the northern Philippines. It aims to reduce poverty and improve the livelihoods of indigenous peoples living in the poorest areas in all six provinces of the region – Abra, Apayao, Benguet, Ifugao, Kalinga and Mountain Province.

CHARMP 2 combines several innovative features in developing indigenous communities in remote areas. These include: strengthening participatory systems of community planning, monitoring and evaluation; enhancing the capacity of indigenous peoples and their councils of elders to take the lead in forestry/agroforestry management activities; providing funds for livelihood assistance to small groups; and commercialization of the products of indigenous peoples through market linkages.

CHARMP 2 is funded by the International Fund for Agricultural Development (IFAD), with additional funding support from the OPEC Fund for International Development, the Asian Development Bank and the Government of the Philippines. The Department of Agriculture is the lead implementing agency. Local government units and the National Commission of Indigenous Peoples are also participating in the project.

Funding best practices gives coffee producers a boost

The environment and climate in the mountainous Cordilleras are ideal for growing coffee. In the municipality of Bokod, Benguet Province, farmers like Pepe Lao-an used to grow coffee in their back yard, but they didn't consider it a viable source of income. When talking about those times, Pepe lists the factors that affected this decision: "The trees were large and tall. It was hard to reach the upper branches. We used to harvest about 1.5 kg per tree, and even then, because we stripped down all the beans at once, it would take about a day just to sort out the ripe ones from the unripe ones for a batch of 5 kg. Then, on top of that, some beans were damaged by parasites. We'd sell the lot for about 170 pesos (PHP) (about US\$3.40) per kilo."

With CHARMP 2, Pepe and his fellow members of the Bobok Farmers Association of Bokod, Benguet Inc., were able to attend a farmer field school to learn improved methods of coffee planting, maintenance and harvesting, which also included techniques of plant rejuvenation. A demonstration site was established to facilitate hands-on learning and, as activities progressed, the planted area gradually expanded.

Coffee was intercropped with alnus trees (from the alder family), which have nitrogen-fixing properties. Additionally, the farmers applied organic pesticides to their plants, which has, according to Pepe, reduced the damage caused by parasites by more than half.

The previously existing plants were pruned, in order to boost bean production – with the added advantage that they can now be handpicked instead of stripped because the branches are lower. Pepe now selects just the ripe beans, leaving the unripe ones on the plant, and so gets a better price for his sorted beans. He also saves the time previously spent sorting the beans when they were harvested all at once.

The coffee trees now yield about 5 kg of beans, or over three times the previous amount. Processing of the beans after harvest is faster and they now sell for 200 to 250 pesos (about US\$4.0 to US\$5.0) per kilo, up to 50 per cent more than before.









New pig breeders are very happy because they had a LAF

Dionisio Talang is one of 29 members of the Paddaoan Livestock and Livelihood Association, in Apayao Province. The association brings together local farmers who mainly subsisted on banana, yellow corn and root crops before they got organized to take advantage of funds available through the Livelihood Assistance Fund (LAF), a component of CHARMP 2. The LAF is aimed at providing smallholders with a small loan that, with the right support and environment, may enable them to sustainably improve their livelihoods.

In February 2015, the members of the association (who numbered 21 at the time) received a loan of 100,000 pesos (about US\$2,000) and training in organic swine production, bookkeeping and business management. The loan was used to purchase piglets of a new variety, which were distributed to the members.

Traditionally, most households raised one pig of the native variety at a time, keeping it tied to a tree trunk until it was butchered and distributed to relatives. After receiving support from CHARMP 2, most households now raise an average of two pigs – one for fattening, one for sow raising. Both are profitable: a grown pig will sell for an average of 12,800 pesos (over US\$250) and typically each sow will give a minimum of two litters of 5-10 piglets a year, which sell for a total of 20,000-40,000 pesos (US\$400-800).

Thanks to the profits from their initial experience, the association was able to pay back the initial loan. It was granted the same amount again in October 2016. Aside from the increase in members, the impact this has had on the association can be summarized by Dionisio's story: "People are more involved now that they actually know how to raise livestock and take care of it instead of just leaving their animals tied to a tree. This project has taught us how to do business and it has raised our standard of living."

One communal irrigation system, multiple communal benefits

Murphy Chunao's land lies on a beautiful hillside which rises up steeply from the river running through the bottom of the valley in Bobok-Bisal, a remote municipality in the Cordilleras. Unfortunately, such beauty comes with its challenges. It is hard to grow crops above a certain height because of the difficulty of getting water to them.

CHARMP 2 funded a communal irrigation system in the vicinity, enabling Murphy to pipe water from a nearby pond built to store water. The pond also plays host to a small tilapia fishery, with fingerlings provided by the Bureau of Fisheries and Aquatic Resources. This single investment in infrastructure (the pond collects water piped over from a stream on another mountain several kilometres away) has transformed Murphy's way of working.

He says: "I used to grow tomatoes at the bottom of the valley, because when it didn't rain, I could use water from the river to irrigate the field. Then I'd have to pay people to haul the crates all the way to the road up here, at 50 pesos (about US\$1) per crate. That took a long time and so every day I had to sell off what little we had hauled up in whichever market I could. And then I'd have to spend some of the money I made to buy rice for our family, because we couldn't grow any."

"Now, with the regular supply of water up here, I can grow tomatoes two to three times a year and still grow paddy near the river. Up here, we're closer to the road, so I pay only 20 pesos (about US\$0.40) per crate for hauling, and we get it all done in one day, so then I can transport the whole lot off to the nearest market at once. I'm really grateful to the project for providing us with this irrigation system. It has changed our life."









When life gives you peanuts, make peanut butter

All over the world, mothers are faced with a common dilemma – balancing the care of their children with contributing to the household income. The women of Madongo, a village in the mountains of the northern Philippines, are no different. Thanks to CHARMP 2's support, they tried a novel approach in their community by forming a group and finding ways of adding value to their domestic harvests.

Traditionally, women in Madongo have grown peanuts as one of their crops, but they had few left to sell after household consumption and rodents had taken their share. In 2014, CHARMP 2 helped 24 of them group together, an essential step for the project's implementation. In 2015, they registered the Madongo Peanut Processing and Marketing Organization (MPPMO) with the Department of Labour and Employment (DOLE). They started by making peanut butter, but their initial attempts didn't go well – they had to purchase more peanuts from other sellers, which was expensive. The unprocessed peanuts also spoiled easily due to pests and rodents getting into the stocks, and transportation costs to Baguio, where they sold the peanut butter, were very high.

With CHARMP 2's support, the MPPMO received training in bookkeeping. It was also given start-up capital of 50,000 pesos (about US\$1,000). Thanks to this money, the women were able to purchase peanuts in bulk at a much more convenient price and buy more efficient equipment. This tipped the scales in their favour.

In the first year of the project's implementation, the women sold their peanut butter for 233,000 pesos (about US\$4,700) and made a net profit of 14,000 pesos (about US\$280). Having proof in this first year that the business was able to make a profit, they now feel much more confident about continuing to operate and grow, while also keeping their children close.

Enabling farmers to maintain a UNESCO heritage site by selling their traditional rice

The farmers of Banaue, in the province of Ifugao, live and work in a very special place: their huge, man-made rice terraces are recognized by UNESCO as a world heritage site. However, this recognition reflects a self-evident fact – that such terraces require a lot of work to maintain. The farmers find themselves in a difficult situation; they are the keepers of a world-renowned wonder, but the very situation which bestows this role upon them makes it hard for them to survive.

To solve this problem, they organized themselves into a cooperative – the Banaue Rice Terrace Farmers Cooperative – with the goal of reviving a traditional, inherited variety of rice and promote it as a niche product to improve the standard of living of local farmers. However, the cooperative got off to a rocky start. The farmers were skeptical about bringing their harvest to be re-sold through the cooperative because Jimmy Lingayo, the manager, did not have funds to pay farmers up front.

In October 2014, the cooperative was awarded a loan of 500,000 pesos (about US\$10,000) through the Livelihood Assistance Fund (LAF) from CHARMP 2. With this money, Jimmy was able to pay farmers directly on delivery, which catalyzed the cooperative's throughput, and in 2015, sales jumped 75 per cent, with farmers bringing rice from all over the province. With the increase in members, the additional volume has been directed towards local outlets as they pay 60-100 per cent more than their other client, an exporter, and the cooperative is now a highly polished operation. In 2014, there were only two local outlets, which sold 2-3 tons a year. But now the cooperative has 14 outlets, which handle five times the initial volume.

On the basis of the LAF's successful implementation through CHARMP 2, the same amount was awarded to the cooperative in 2016, this time as a grant. With this investment, and the continuous growth, the cooperative's membership has increased from 276 to 370 members, Jimmy and the other four staff members are now paid (they all used to work as volunteers) and the caretakers of the UNESCO heritage site are now able to make a good living from their land. To further increase the cooperative's operating capital, each member contributes a minimum of 100 pesos (about US\$2) a month.







Early adopters of innovations from a farmer field school set an example for their neighbours

Henry Chegyem is a member of the Liwanian Indigenous Community Association (LICA) from the village of Ili, in the northern province of Apayao, where the members of the association have traditionally subsisted by growing a combination of rice, corn and vegetables. In 2012, Henry and 21 other members of LICA graduated from a farmer field school as part of CHARMP 2's activities. Unfortunately, although the school was open to all 276 households in the village, many villagers were hesitant to attend, maybe because they were unsure of how IFAD's support would contribute to improving their livelihoods.

The farmer field school focused on fruit production, especially local fruits such as rambutan and lanzones, and addressed methods for ensuring the health and productivity of trees, including seedling preparation, grafting, and intercropping with corn, pineapple and banana. Over the next three years the LICA established a nursery and a plantation, covering an area of 14 hectares and containing almost 4,000 seedlings. In 2016, they established their own association, the Ili Seedling Growers (ISG), which is independent of LICA.

ISG members have since been growing fruit and seedlings in their back yards. Some use their

seedlings to further expand their own plantations, while others have larger productions and are able to sell their seedlings as well, including to other households in the area. Before the project, only a couple of gardens in the village had any fruit trees. But after seeing their neighbours' success, almost all households now have some.

The group has maintained the nursery, using it to generate additional income from seedling production. Seedling production has been extended to a much wider range of plants for human consumption, including mangoosteen, cacao, mandarin and calamansi, which is a local citrus fruit, as well as mahogany.

Telling the story while giving a demonstration of the grafting techniques he learnt in the school, Henry recounts: "Ninety per cent of the rambutan trees that we planted are now bearing fruit. The first harvest yielded only about 0.5 kg per tree, but the last one yielded 5 kg per tree."

The group's experience serves as evidence to other households that growing the right fruit in their back yards can provide additional income (since they didn't know how to select the appropriate variety, the rambutan they planted before the project was a sour variety that was not even eaten at home). As for the seedling part of the business, Henry says: "On average, those who are able to sell seedlings have brought in over 50,000 pesos (US\$1,000) a year from them since the project started."

Channelling funds into the right infrastructure

The villagers of Supo, in Abra Province, rely heavily on a nearby river for irrigating their land. They have built extensive canals and a dam to control the water reaching their rolling rice fields, using traditional methods and materials. The canal walls were lined with dry riprap; the dam was built with rubble.

Telio Macario is president of the almost 100-household strong Supo Dapat Farmers and Irrigators Association, which handles the irrigation system's operation and maintenance. As such, he is very familiar with the amount of work needed to keep the infrastructure in working order.

"We had to clear out silt and debris 10, maybe 15, times a year, especially during the rainy season. It's the worst season to do this, because the waters are high and the current is strong," he says. "The whole process takes a week. And this is after already spending two weeks fixing up and reinforcing it all before the rains started. We used to collect 15 kg of rice from each household and sell it just in order to pay for the works – we gave each person 100 pesos (about US\$2) a day."

And the problems didn't end here: the dry riprap had holes in it, so valuable water seeped out of the canal walls before reaching the fields. CHARMP 2 funded a series of works to improve the communal irrigation system. This comprised rebuilding the dam and canals with improved materials and adding several structures, including a suspended pipeline to carry the water further.

This has had a vast impact on the village. Annual maintenance has been drastically reduced from about 100 days to 2-3 interventions lasting two days each. People who used to work to maintain the irrigation system are now free to pick up other jobs such as road maintenance, which pays 2.5 times as much. With an improved irrigation water distribution system, the average household's cultivated area has increased by over 15 per cent and families can now grow three rice crops a year instead of only two. They have also switched to a variety which yields a larger harvest, resulting in a combined 75 per cent increase in output, most of which is sold to bring in additional income.

(A previous version of this story has also been published in "Kindled Hopes: The Unfolding Story of Sustainable Development in the Cordillera Highlands", a publication of DA-CHARMP2.)







The Rural Microenterprise Promotion Programme (RuMEPP)

Building on the experiences of the IFAD-funded Rural Microenterprise Finance Project (RMFP, 1996-2002), the Rural Microenterprise Promotion Programme (RuMEPP, 2006-2013) targeted the poorest 19 provinces in five poor regions in the country, focusing on areas with the highest potential for enterprise development. Included in the 19 provinces were Abra, Ifugao and Kalinga in the Cordillera Administrative Region.

RuMEPP aimed to raise the incomes and improve the livelihoods of poor rural people by providing them with loans and other financial services and business development services, such as capacity-building, market linkages and product development. It worked with microentrepreneurs and other poor people involved in microenterprises, including women, young people and indigenous peoples in rural areas. Although RuMEPP focused on the formation and expansion of microenterprises at the lower and poorer end of the scale of assets, it also included larger microenterprises, which were and are an important source of employment. The project directly benefited about 200,000 households.

The Philippines' Department of Trade and Industry was the lead implementing agency of the programme; its direct partner in implementing this project was the Small Business Corporation of the Philippines.

A baker with a taste for innovation

Mount Zion Bakery is probably the only place in Tabuk City, Kalinga, – if not in the Cordilleras – which makes bitter gourd-flavoured cookies. There are also other flavours to choose from, such as coffee, peanut, malunggay (also known as moringa, or drumstick), cacao, squash, unoy rice (red rice) and carrot. And that's just the cookies, of which they've been adding new flavours every year; then there's bread, donuts and buchi (a fried sweet made with rice, sesame and red beans) and recently they have expanded into selling other food from other producers, as well as the local Inabel type of cloth.

Back in 2010, Sally Pepito, the owner, operated on a small scale and just sold bread, donuts and buchi. Through RuMEPP, she attended a training session on baking and afterwards was helped to receive two loans for a total 80,000 pesos (about US\$1,600). She used this money to improve the bakery, buy ingredients and apply her newfound knowledge to bake coffee cookies.

At her request, government agencies also provided help. The Department of Science and Technology lent her equipment for the bakery and, through RuMEPP, the Department of Trade and Industry designed packaging for her new products.

As her business expanded, she tested out new flavours. If they sold well, they were added to the options she offered. Her client base has expanded to include local hotels, Pasalubong centres (gift shops) and customers who come from as far as Isabela Province and Baguio, the most populated city in the Cordilleras. She has expanded her store and now sells other products beside what she makes herself. To handle the increased volume, she now employs two bakers in the kitchen and one saleslady; she also gives part-time employment to two students. She says: "I was able to buy a second-hand van for deliveries and the land on which this bakery stands. I also paid for my three children's education, and we're now expanding the house. If not for RuMEPP, I wouldn't have been able to do any of this."









IFAD support provides wine maker with ample reason to celebrate

Brienda Gup-ad was already a committed entrepreneur a long time before she became a beneficiary of RuMEPP. As a child, she recalls her mother making wine at home, but as she didn't follow a fixed recipe, the taste often changed. Lacking funds, but committed to starting her own business, she left Tabuk City to work in Hong Kong as a domestic helper for several years, until she had raised a starting capital of 45,000 pesos (about US\$900). She launched her business, coming up with her own recipes by trial and error and selling her products locally under the label of "Tabuk Wine". She says: "People only used to buy wine during special occasions and events, but I wanted to turn this business into my livelihood, and to do that, I needed a larger market."

The pivotal moment came during a conversation with one of her clients. She recalls: "He said – 'Your wine tastes much better than all the other ones, but it looks just like all the other wine. You should make it look different so that people know that yours is better' – so I decided to try following his advice." She went to the Department of Trade and Industry for help. RuMEPP helped her design new packaging and then covered her expenses to attend a trade fair in Manila. "I took just a few boxes, because I didn't know if I was going to sell much. I sold them all and had to call my husband and tell him to bring more from home, quickly."

The trade fair in Manila gave her exposure to national buyers and she now regularly sends wine to clients all over the country, including hotels. Like any good businesswoman, she reinvested the proceeds into her business and is now expanding her house to accommodate both larger living quarters and a whole new processing area to meet the demand.

Striking the metal while it's hot

Roland Bongtiwon of Kiangan, Ifugao Province, has been a blacksmith ever since two government agencies helped him launch his trade. The Department of Trade and Industry (DTI) gave him access to a shared service facility and the Department of Science and Technology gave him a loan to invest in tools and materials.

He was doing well enough to look after his family and employ five workers, making and selling traditional knives and other tools of various sizes and shapes in the area. Once in a while he'd venture a little farther afield to a local trade fair. When RuMEPP offered to help develop the quality of his products even further, he jumped at the opportunity. Through RuMEPP, Roland and his wife consulted a specialist who came up with several innovative designs for the tools he made. Roland was then given two all-expenses-covered trips to trade fairs in Manila, where he could showcase his work.

The innovative designs were a success. Eventually, four of his employees, who had developed new skills through making the new tools, opened up their own businesses and Roland replaced them with two new skilled workers and his two children, who created their own designs. His kids are paying for their high school studies this way. On top of the initial 11 new designs provided by the specialist, Roland developed 11 more (also based on the specialist's proposals) and is now selling these too.

He is still ramping up production to meet demand. His wife helps out as well. He says that as he is so busy he hardly has time to go to trade fairs anymore. However, that doesn't prevent him from reaching his customers: nowadays buyers simply ask him to ship the finished tools over to them and they pay for transport as well.

(A previous version of this story has also been published in "Compendium of Case Stories in Ifugao Province (RuMEPP)", a publication of DTI-Ifugao Province.)









Not just a figure of speech: coffee-grower turns manure into money

Civet coffee is digested by a little mammal who loves eating the ripe coffee beans. It's that little quirk that makes civet coffee special: musang coffee, as they call it in the Philippines, is just about the most expensive coffee on the planet. And someone has been smart enough to capitalize on it, with the help of RuMEPP.

Zita Degay, from a village near Tabuk City, Kalinga, used to sell green coffee beans of both Arabica and Robusta types to Nestlé for 1 peso (about US\$0.02) per kilo. She asked the Department of Trade and Industry for help, and through the RuMEPP she was able to borrow additional capital from a microfinance institution to add to her starting capital of 5,000 pesos (about US\$100).

She invested that capital in buying and processing civet coffee, and thanks to RuMEPP, attended a trade fair in Manila, where she attracted new buyers, enabling her to further develop her business. In addition to civet coffee, she now sells green beans and roasted and ground coffee of Arabica, Excelsa (also considered a sub-genre of the Liberica variety) and Robusta varieties, as well as a ready-made blend of Arabica and Robusta. Her market has shifted and she now sells at local, national and international levels.

With the profits from her broader client base, she has been able to expand her coffee plantation, build her own processing centre and equip it with new machinery, such as roasters, grinders, coffee makers and sealers. From being a one-person business when she started, she now employs up to 50 people at a time during the peak production season, including students, housewives and senior citizens from the area.

RuMEPP beneficiaries spin another yarn – and everybody's buying it

Bulbulala is one of many villages in the municipality of La Paz, in the Abra Province of the Cordilleras. This village, however, has something that sets it apart from the others: many of its 1,300 villagers are Inabel weavers. Inabel literally means "woven", but it has grown to be representative of the general style of weaving in the northern provinces of the Philippines.

The two styles of Inabel that the weavers of Bulbulala typically made are called Binakol and Kantarenis, the most popular and common in the area. Nelia Ardaniel, an Inabel weaver, tells about the difficulties of selling the same products as everyone else. "We used to sell within the barangay (village) only, and it was hard to make a profit, because here the buyers always want to bargain on the price."

RuMEPP assisted the Inabel weavers to improve specific aspects of their business at different stages. This assistance included business development training, the introduction of less common Inabel styles, such as Tiniri and Pinilian, sponsoring their participation in trade fairs in Manila many times and providing training for sewing new types of products to expand their range. Additionally, the Department of Labour and Employment and the Department of Science and Technology provided equipment and raw materials.

This support dramatically opened up the weavers' market. While they still sell to local outlets, they now have large buyers in Baguio and Manila – buyers who pay the price set by the weavers. Tiniri is now the highest selling style of Inabel, although it took some time: buyers in Manila did not know what Inabel was and had to be taught by the weavers at the first trade fair.

As a result, Nelia's sales have gone up tenfold. At the start of RuMEPP's engagement in 2012 she used to make 20,000 pesos (about US\$400) per year. Now, five years later, she brings in 225,000 pesos (about US\$4,500).









DTI and IFAD – patrons of arts and crafts in the Philippines

Roxanne Tauro is a shopkeeper with an artistic side. Making art and crafts used to be a hobby for her until one day she decided that she wanted it to be something more. She collected all the flower art she had made by using seashells and went to the Department of Trade and Industry (DTI) to ask for help in marketing her works.

RuMEPP invited her to attend a local trade fair where she could show and sell her works and to take part in a training session on making bags and flowers with corn husk. Finally, she went on a learning visit where she saw how to make dolls and decorations with husk.

But Roxanne is a restless artist and could not just stick to the basics: she got creative and innovated, coming up with new designs for bags, dolls, flowers, corsage, stuffed animals, small play houses, and more.

DTI called again, providing her with RuMEPP financial support to pay for travel, board and lodging so that she could attend another trade fair all the way over in Manila, where her crafts were a success.

Back home in Bangued, Abra, Roxanne's business is doing beautifully. Although she still attends local trade fairs and sells her products to local stores and Pasalubong centres, she now sells directly to the public and has also cornered the corsage market during graduation time – most of the schools now order from her exclusively.

Since she can't keep up with so much demand on her own, she now contracts students to carry out the most volume-intensive tasks and pays them according to their output, which also helps the students to support themselves during their education.



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