

Farmers in the Cordillera region of the Philippines actively preserve their "heritage" rice varieties

Most organizations working toward sustainable development believe that giving people money does not get rid of poverty. Instead of giving "doles," empowering people and communities to take control of their situations has been deemed a more sustainable approach.

In the Philippines, the second phase of the Cordillera Highland Agricultural Resource Management Project (CHARMP2) works to reduce poverty and improve the quality of life of rural communities in the highlands of the Cordillera Administrative Region (CAR). The CHARMP2 project, an International Fund for Agricultural Development (IFAD) investment within the Department of Agriculture (DA), provides interventions such as community mobilization, watershed conservation, agriculture and agribusiness development.

the promotion of income-generating activities, and the development of rural infrastructure.

Recently, CHARMP2 forged a partnership with the Consortium for Unfavorable Rice Environments (CURE), which is coordinated by the International Rice Research Institute (IRRI). Through this, CHARMP2's development interventions will hopefully be strengthened with the support of CURE. In turn, the partnership will enable CURE to introduce and extend technological options over a wider area.

Threatened heirlooms

Under CHARMP2, three remote upland villages—Bagtayan in Pasil, Kalinga; Fiangtin in Barlig, Mountain Province; and Bangbang in Hungduan, Ifugao—are the focus of the collaboration with CURE. These villages were selected because they have existing activities that are in line with CURE's goal, which is to empower local rice growers to reduce poverty. Also, they have strong local government unit support, connection to rice markets, and a well-prepared village participatory investment plan that matches the needs and development priorities of stakeholders with local resources/budget.

Farmers in these villages grow traditional rice varieties that



AN EXTENSION worker in Hungduan, Ifugao, examines a rice plant with black.

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their ancestors have cultivated for hundreds of years. In Bagtayan, heirloom rice varieties are classified according to the season when they were grown—dry season (Unoy) or wet season (Uyak) and whether they are glutinous (Alig, Lachok, and Yonga) or nonglutinous (Chongak, Chumalling, Ifuwan, Finuga, Chiplog, and Ginonnaw).

In Fiangtin, farmers grow the rice variety Mountain Violet (or Ominio), which is named after its color. This variety has been recently recognized as a "heritage food" in danger of extinction by the *International Ark of Taste*, which seeks products from all around the planet at risk of extinction but that can be rediscovered and be returned to the market.

Farmers of Bangbang also have a range of traditional rice varieties such as Oklan, which comes in white, red, and green forms, and Minaangan, a traditional red rice. Also, they have a "sticky" rice variety called Diket, which literally means to stick.

Best practices for conservation

Revitalize Indigenous Cordilleran Entrepreneurs (RICE) Inc. is a Filipino nonprofit, nongovernment organization that aims to preserve these heirloom rice varieties and the culture of community rice production that surrounds them in the Cordillera region. Farmers have noted that the purity and quality of their traditional rice varieties have deteriorated through the years, so they see the importance of restoration or preservation of these varieties. They also face many production problems related to changes in weather and infestation of rodents, pests, and diseases.

RICE Inc. buys rice from the farmers at prices higher than those in the local market and sells it in the United States. For this market, however, farmers have to follow higher standards in terms of selection of acceptable seeds, harvesting, drying, milling, and storage. The organization also discourages farmers from using pesticides, despite problems of rodents, earthworms, and rice blast disease in their fields.

In Bagtayan, farmers have observed that applying mineral

fertilizers affects the distinct aroma and taste of Unoy, a local dry-season variety. These mineral fertilizers are difficult to obtain because of the inaccessibility of their village. Farmers have therefore adopted organic farming methods, such as the Korean-inspired method that uses fermented plant juice. They also use botanical insecticides, or plants that have insecticidal properties. It is reported that about 100 plants in the Philippines have insecticidal properties that could be used to control pests. Farmers here are also taught the *Palay Check System* from the DA in combination with indigenous practices through the farmers' field school.

Across the villages, farmers are concerned about several problems: their rice terraces are eroding, their rice yield is low and unstable, and they need to intensify their crop to improve their farm productivity and income. Farmers also worry about a lack of interest in rice farming among the younger generation, who prefer to seek work elsewhere. This means that no one else will preserve their tradition and maintain the productivity of their rice system (see *Contours of change* on page 8-13 of *Rice Today* Vol. 3 No. 1).

Where two points meet

To improve the livelihoods of the farmers in the remote areas of northern Luzon, CHARMP2 links

with rural communities in the area and partners with CURE to help provide rice technologies to benefit farmers. Together with farmers, they conduct meetings and site visits in the three villages and produce participatory videos that show a combination of indigenous and modern methods of farming.

The farmer-beneficiaries and CHARMP2 staff document their best management practices for them to share their knowledge and experiences with other farmers on topics such as nutrient management in an organic system. Project staff members also provide training on participatory process documentation, which includes organizing, analyzing, and documenting field-based information and reporting in various formats and media.

Other activities include participatory adaptive research and varietal selection in the highlands of Kalinga, technology clinics to respond to problems of rice blast and other diseases, organic farming, and disseminating technologies such as trap barrier systems for rodent management (see *Building a better rat trap* on pages 34-35 of *Rice Today* Vol. 4, No. 2). As an example of success elsewhere, the introduction of community-based trap barrier systems in Vietnam and Indonesia has successfully reduced farmers' use of chemicals by up to 66% and 50%, respectively; helped them increase yields by up to 0.5 ton per hectare; and significantly reduced their costs of rodent control.

As a good working synergy, CURE, CHARMP2, and the farmers greatly helped in the process of responding effectively to the needs of the community. Involving farmers in activities such as varietal selection, adaptive research, and documentation not only empowers the farmers but also sustains development in the community.

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REPRESENTATIVES FROM IRRI-CURE, Dr. Digna Manzanilla and Dr. Carlana Vera Cruz, along with Dr. Nenita Dejanero (PhilRice), and Mr. Ceferino Oryan (municipal agriculturalist of Barlig, Mt. Province), meet the members of the Kadalagan Farmers' Association, to explore possible areas for collaboration.

HEIRLOOM IN THE MOUNTAINS

by Elenor de Leon, Digna Manzanilla, and David Johnson

A TRADITIONAL storage house in Pasil, Kalinga.