

Indigenous Food Plants (IFPs) for Increased Food Sufficiency in Ilocos Norte, Philippines¹

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Many plant genetic resources (PGR) are disappearing at an alarming rate as a result of man-made activities and natural phenomena. Even more unfortunate is that a number of plants remain unknown and are likely to be lost before they are identified. This genetic erosion is expected to aggravate due to the adverse effects of climate change.

Thus, there is a need to safeguard the remaining PGR to conserve biodiversity for the next generations -- increased diversity means greater chances of meeting and sustaining future needs. At the same time, their potentials should be fully explored to optimize their utilization especially in broadening the food base to feed the growing population. Hence, PGR research, particularly on indigenous and wild edible plants as a means of community health enhancement, income provision, and biodiversity conservation, now receives global attention.

This paper presents the findings of a study on PGR with emphasis on indigenous food plants (IFPs) found in the province of Ilocos Norte, Philippines. Through a research grant from the Seed Fund for Research and Training (SFRT) program of SEARCA, the Mariano Marcos State University (MMSU) spearheaded

the documentation, promotion, and conservation of IFPs in the province. IFPs are reported to be an integral part of the daily diets of many poor rural households in the province, especially among the tribal groups such as the Isneg, Igorot, Yapayao and Tingguian.

IFPs in Ilocos Norte

A total of 46 IFPs representing 25 plant families were documented in the province. These were a combination of vines or lianas, shrubs and undershrubs, herbs, trees, grasses, and palms found in seven upland and remote municipalities of Ilocos Norte, usually at an elevation that rises as high as 1,110 m above sea level. These areas are primarily forest/ woodland and grassland especially those interlaced with creeks and streams. Some of the IFPs were also found in agricultural areas.

Seventy nine percent (79%) of the identified IFPs abound in Adams, Ilocos Norte. The next IFP-rich towns are Bangui and Nueva Era where 36% and 34% of the IFPs collected were located. Vintar, Pagudpud and Dumalneg each accounted for 28% of the IFPs collected and identified while Carasi accounted for 26%. It should be noted that IFPs are unique to one or two sites depending on the soil moisture, elevation, rainfall

level and temperature. Many of the collected ones were unique to Adams (e.g., different types of ferns like parangipang, sibanglan, pako and barangbang; *Ammomum muricarpum* (tarosi); and wild *Capsicum annuum* (libokeg) because of the town's high elevation, long rainfall period, and low temperature.

Local efforts on IFP promotion and conservation

Despite possible genetic erosion brought about by adverse environmental changes, there are still insignificant efforts given to conserve and safeguard this component of agrobiodiversity. Initiatives from local residents prove insufficient in protecting IFPs from extinction. There is also no known government intervention at the provincial level intended to conserve or safeguard IFPs and their habitats. Therefore, there is a need to encourage all concerned stakeholders for possible collaboration toward sustainable conservation and utilization of PGR.

The promotional activities undertaken by the study to enhance people's awareness and appreciation of IFPs and encourage them to take part in conservation efforts included the production of information, education, and communication (IEC) campaign



Collection of *Homalomena* (*bilagot*) in a waterfall in Dumalneg, Ilocos Norte.

materials; presentation of research results in scientific gatherings, lecture forum, and to local government units (LGUs); putting up exhibits; and establishing a botanical garden.

These promotional efforts led to greater recognition of the benefits of IFPs, and hence, the resolve of local communities to employ *in situ* conservation and “conservation by use” of these PGR. They store or reserve seed stock for the next cropping season. IFPs are planted yearly or continuously propagated in fields, kaingin farms, and home gardens. Wild varieties of IFPs are likewise domesticated.

Lessons Learned and Policy Recommendations

There are several lessons learned from this study:

- Diverse IFPs found in Ilocos province can potentially contribute to food sufficiency, community health, and economic improvement of upland communities. The

documented IFPs, particularly root crops, can be developed as potential livelihood projects by developing new recipes and value-adding of by-products.

- Proper habitat management is an effective means of conserving PGR. Through the IFP inventory, researchers gained better understanding of each species’ habitat requirements, which can be considered in conservation planning. Majority of IFPs in Ilocos Norte are not soil condition-specific; hence, they can be grown and propagated in other areas, which complements habitat preservation and increases food sufficiency.
- Establishing a field genebank or botanical garden showcasing IFPs can serve as a mechanism to promote and conserve PGR. It can also boost ecotourism and serve as learning resource.
- IFPs are an integral part of the Iloko culture. Hence, conserving these plants is tantamount to preserving the cultural milieu of the various indigenous groups in Ilocos Norte.

To realize sustainable conservation and utilization of IFPs, several interventions should be addressed as follows:

1. Academe and R&D institutions should undertake:
 - proactive research on nutritive components of IFPs as well as development of new recipes and processed products;
 - adaptability and domestication trial on wild plant varieties;

- improvement of cultural management for increased productivity;
 - wider IEC campaign on the importance of IFPs and how people can help in conserving them; and
 - capability building for potential adopters, entrepreneurs, and growers on processing, product development, and improved cultural management of crops.
2. Promulgation of local (municipal or provincial) policies and ordinances on:
 - identification and conservation of endemic or rare plant species’ habitats,
 - banning massive collection and export of unique species;
 - integration and institutionalization of barangay and home gardens in all municipal Clean and Green Programs, and
 - establishment of community genebanks or seedbanks.
 3. The Philippine Department of Education should integrate IFPs on gardening activities of both elementary and high schools in the province.

¹ An excerpt from the research highlights “Survey and Characterization of Indigenous Food Plants in Ilocos Norte, Philippines,” a SEARCA-SFRT grant winning proposal

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