

## **BIBLIOGRAPHY**

NANGLEGAN, LORENZA P. APRIL, 2013. Documentation on the production and marketing of Tinawon rice of Hingyon, Ifugao. Benguet State University, La Trinidad, Benguet.

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## **ABSTRACT**

This study generally aimed to document the production and marketing of the traditional native rice Tinawon of Ifugao. It was conducted in Hingyon, Ifugao from the month of December 2012 to January 2013 to gather the necessary desired informations. Specifically, this study aimed to determine the production and marketing practices in the production of Tinawon rice; know the perception of the farmers about the exportation of Tinawon rice; determine the supports received by the farmers from concerned organizations and know the problems faced by the rice growers.

The data was acquired through interview of 30 Tinawon rice producers regarding the production and marketing of the Tinawon rice, with a help of interview questionnaire. Data obtained were tabulated and subjected to frequency analysis.

Results revealed that production and marketing of Tinawon rice in Hingyon, Ifugao still follow the traditional method except for the rituals. As to perception on the exportation of Tinawon rice; the farmers were not willing to export their rice because they prefer to use it for family consumption. To improve rice production the farmers are in need of seminars and training that would upgrade their knowledge, skills as well as involving in bayanihan activities. Problems encountered are usually environment related.



## INTRODUCTION

### Rationale

Rice is among the most versatile food around –they can be cooked in countless ways. They are also energy giving foods that have become popular throughout the world. It is well loved not only by Filipinos and their Asian neighbours, but also by foodies in many parts of the globe (Lee, 2006).

As a crop contributing to the food security, rice is the staple food of more than half of the world's population, most of the people who live in less developed countries. In terms of global security requirements, it has been argued that rice production must be increased by 70% to support the needs of the world's population by 2025 (Riveros, 1999).

Filipinos are highly dependent on rice (*Oryza\_sativa*) since it is the staple food of the people and the lifeblood of the nation. It provides the calories in the daily diet of many people in of the world population and as a good source of energy as well as protein and some minerals and vitamins.

Since 83% of the total Philippine population depends on the rice for subsistence, almost 50% of the cultivated area in the Philippines is devoted to rice production. Indications are that future demand will surely accelerate to keep pace with the rapid population growth. The increasing demand can be met by an expansion in land area planted to rice and an increase in yield per unit area. But since the availability of the land has become a constraint, emphasis should be on the technology to increase the yield per hectare. Since the introduction of the modern technology in 1966, the switch from traditional varieties to modern rice varieties was rapid. However, in spite of the use of



modern varieties, rice production in the past years had not been increasing to match the increase in population.

Traditional rice is still preferred by most of the tribal folks in the Cordillera Region. This is supported by the growing of these varieties up to the present times. The continuous growing is because these varieties are already adapted in the locality and can survive given minimal inputs. However, due to the introduction of modern varieties, some of these traditional varieties are in danger of extinction.

Tinawon rice is heritage rice grown in the rice terraces of Ifugao. It is known how old the variety is but its cultivation has always been part of the terraces and the culture of Ifugao people. Each of these heirloom varieties has its own distinctive flavor and aroma, with extraordinary taste and texture. Tinawon rice is highly aromatic, unusually delicious, and visually beautiful. It is the only rice variety that can grow in the field without commercial fertilizer or pesticides. Tinawon, the rice variety that the Ifugaos old folks believed that was handed by their god “Kabunyan”.

The Ifugao rice called Tinawon is now being packaged locally and exported abroad for a premium price. Identified as the One Town One Product (OTOP) of the municipalities of Hingyon and Banaue, the Tinawon variety is a high value crop which is grown in high elevation terraced areas of Ifugao. Local officials of these two towns are assisting their respective farmers to intensify production to be able to meet the demands of the market. Records from the provincial government showed that a total of 27,851 hectares are planted with Tinawon in the irrigated rice paddies in Banaue and other municipalities (Bulayungan, 2011).



## REVIEW OF LITERATURE

### Heritage Preservation

Tinawon, an indigenous rice variety grown in this province, is experiencing a production slowdown with many rice farmers shifting to other varieties that produce a higher yield. Tinawon literally means “yearly”. The rice variety was called such because it is produced only once annually. Agoot (2011) quoted the statement of Provincial Agriculturist Raymundo Bahatan who said that due to the high cost of producing Tinawon rice, many farmers are shifting to other high-yielding varieties which are more reliable when it comes to income generation. Tinawon rice, as Bahatan said requires a high-maintenance cost that starts from land preparation until it is milled as rice ready for cooking. It is also attractive to rats, thus the need to regularly clean the surrounding of grasses, to prevent rats from entering the paddies.

Bahatan added that if before, Tinawon was grown in all parts of the province, such is no longer the case today, with many of those who previously grew the rice shifted to other varieties, which are less labor intensive and produces more yield. In a 2,500-square meter area, he explained, about 500 bundles of Tinawon palay is produced. When milled, it can be sold at P60 a kilo, which is at break even in terms of expenses incurred in production as well as the labor input used in producing it.

Tinawon needs seven months from the time the palay is placed to the seedbed until it is harvested for drying and milling. Tinawon Fancy, locally known as Imbuucan, is the treasured variety of high-elevations farmers in the municipalities of Banaue and Hingyon, Ifugao. The Imbuucan variety has been designated to the Slow Food Foundation’s



international “Ark of Taste.” Inclusion in the Ark means that the rice has met the foundation’s standards for taste quality, environmental sustainability and respect for the cultural identity of the producers. With a slight pink or brown hue when cooked, the grains of this rice are large and puffy. The taste is delightful, rich, and deep, with a very clean, mild sweet after taste. Bahatan explained that many of those who continue to plant Tinawon do so because “they love the culture, which is associated with rice planting. He further said that aside from converting to other rice varieties, the majority of the farmers’ children are not interested in rice planting, more so, planting of Tinawon, which explains the low and continuously decreasing production of the variety. He added that as far as the market is concerned, there are buyers, but the problem remains to be in the production side. Annually, Ifugao produces an average of 2 to 3 tons of Tinawon rice, which is only half of the demand, especially with the market established on export to the United States (Agoot, 2011).

Assistant Secretary Dante Delima, DA National Rice and Corn coordinator, claimed that traditional rice varieties particularly those coming from Ifugao may be the most climate change resilient variety in the country, if not the world. Delima said this is why DA Secretary Proceso Alcala visited the Ifugao rice terraces, a UNESCO World Heritage Site, to assess infrastructure, technical and production support the agency can extend to farmers producing heirloom rice varieties. Based on the agency’s assessment, the Batad rice terraces have been badly eroded by heavy rains brought by Typhoons Pedring and Quiel (Agreda, 2011).

Delima said there is a need for the immediate rehabilitation of the area before future rice production is affected. Alcala said in a farmers’ forum held at Venus Parkview



Hotel, DA allocated P20 million for the immediate repair of critical and vulnerable areas in the rice terraces and additional P30 million for other production support for other crops grown in the province such as coffee and corn. Next year, with an expected 60 percent increase in the budget of the agency based on 2012 appropriations, Alcala said the province will be given additional P105 millions as funding for the development of the rice terraces and the improvement of provincial crops output for coffee and corn. Delima added rehabilitation of the terraces needs the support of local governments through training of people planting heirloom rice in the terraces and the creation of a task force who will manage the terraces. DA is also planning to put up an heirloom rice museum and processing center to improve genetic diversity of rice varieties planted in the terraces, as the imminent threat of extinction of these varieties are already being felt (Agreda, 2011).



## METHODOLOGY

### Locale and Time of the Study

Ifugao, home of the world famous Banaue Rice Terraces, is located at the heart of the Cordillera mountain ranges. The province is bounded by different provinces. At the southern and eastern part, it is flanked by Nueva Viscaya and Isabela, on the north by Mountain Province, and on the high peaked mountains of Benguet. Of the total provincial land area of 2,517.78 square kilometres, agriculture dominates the land use occupying 830.50 square kilometres. The rest is either categorized as forest lands, alienable and remote areas, built-up areas and other purposes.

The study was conducted in Hingyon, Ifugao. Topographically, the area is characterized by extensive mountain ranges. It has also streams, gullies, creeks, and rivers draining into adjacent municipality and finally to the lowlands. Basically, the locality has two pronounce seasons: dry from January to April and wet for the rest of the year. The temperature and climate of the locality can be attributed to its forest cover as well as its geographic location.

In order to obtain the desired information this study was conducted from December 2012 to February 2013 in the municipality of Hingyon in the province of Ifugao.

### Respondents of the Study

The respondents of the study are primarily concerned with the selected 30 farmers of Tinawon Rice from the municipality of Hingyon, Ifugao

### Research Instrument



A survey questionnaire regarding on the documentation of the production and marketing of Tinawon rice was employed in the study supplemented with interview. The respondents answer the questionnaires based on their marketing and production experiences.

### Data Gathered

The data gathered included the demographic profile of Tinawon rice producers, farm profile, practices of the farmers in production and marketing of Tinawon rice, perceptions of the farmers about the export of Tinawon rice, supports received and problems encountered by the farmers.

### Data Analysis

The data collected was categorized, tabulated and interpreted according to the objectives using frequency analysis.





## RESULTS AND DISCUSSION

### Demographic Profile of the Tinawon Rice Producers

Table 1 shows the profile of the producers as to gender, age, civil status, household members, educational attainment, occupation and number of years in farming.

Gender. The Table shows that there were more male respondents (87%) than female (13%). This implies that Tinawon rice production in Hingyon, Ifugao is managed mostly by the head of the family.

Age. About 34% of the producers belonged to the age range 31-40 years old. This is followed by (23%) 41-50 years old and (13%) 61-70 years old. Ten percent each had aged range of 27-30, 51-60 and 71-80 years old. This finding shows that most of the producers are in their middle ages.

Civil status. The distribution of the respondents as to civil status is as follows: most are married with 84%, 13% single and 3% widow.

Household members. The finding shows that 50% of the respondents had 6-10 household members, (40%) 1-5 members, and (10%) 11-15 members.

Educational attainment. As to educational attainment, 60% were elementary level, 27% were secondary level and 13% were college level. The finding shows that most of the Tinawon rice growers did not reach college level.

Occupation. The table shows that one hundred percent (100%) were engaged in farming. Some producers were also (14%) carpenters, (3%) office worker, (3%) foreman while at the same time engaged in farming.



Numbers of years in farming. Most (47%) of the producers have engaged in the range of 2-20 years of farming, followed by twenty seven percent (27%) by the range of 21-40 and twenty three percent (23%) by the range of 41-60 and three percent (3%) is in the range of 61-80 years of farming.



## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

### Summary

The study documented informations regarding the Tinawon rice production. Specifically, this study gathered information along the following aspects: demographic profile of the Tinawon rice producers as to; gender, age, civil status, numbers of household members, educational attainment and occupation, farm profile as to; land tenure, land area and source of irrigation, farm production profile as to; quantity harvested, kilogram of rice per bundle, price per bundle, varieties planted, planting month and harvesting month.

The study documented also the traditional practices followed by the Tinawon rice producers in the production from planting to harvesting period which includes the drying and storage. The finding shows that the producers follow a production cycle in cultivating Tinawon rice. The use of agricultural tools gave a very significant role in the continuous production. Basically, all of these agricultural systems are interrelated.

The respondents are not interested in engaging on the export of the produced traditional rice since this is just enough for home consumption and sometimes not, in addition the traditional rice is a nutritious and delicious for their family for everyday living and the passion for maintaining the culture of having part of their everyday life.

Finding shows that given the activities perform as a support in the improvement of the rice production, the local government unit have the great role in coordination with the concerned entities in the improvement of the production.

The problems encountered by the respondents in the production are mostly environment-related like climate, drought, landslide, storm damages, irrigation, distance of



the production area and pest. Other problems include labor scarcity, long maturity that may caused crop failure. All of these problems encountered by the producers are all interrelated.

### Conclusions

Based on the findings, conclusions are derived that the production of Tinawon rice production are mostly headed by the head of the family, most of the producers are in their middle age and married, most of the producers did not reach college level and they engaged in farming for 2 years and beyond, most producers are tenants and their land area are ranging in 500-1000 square meters. Most of the rice field are rainfed.

For an average family household of about six members the average harvest of 472 bundles is not enough for family consumption for the whole year, thus some of the farmer in the study area shifted to planting the high yielding varieties which are produced twice a year.

The traditional patterns in cultivating Tinawon rice are still followed by the farmers nowadays however some of the traditional beliefs and practices are no longer followed. Most of the palay are stored in the granary and the source for drying is the sun.

The producers are not willing to export their rice produced because they prefer to have it for family consumption.

Tinawon producers in Hingyon Ifugao are in dire need of technical assistance as well as financial assistance to help cope with the effect of climate change, and the scarcity of labor that hinders them to cultivate some of the abandoned fields.



## Recommendations

Based on the major findings and conclusions of the study, some recommendations are derived. Concerned entities should further exert more effort to encourage the farmers who need more assistance in their production for more fruitful result. Conduct more researches on these traditional agricultural practices to improve them. Through the study, innovators would be able to understand more clearly the complexity of the agricultural practices. With regards to problems encountered in the production and marketing area the proper and continuous techniques supervision on the rice fields are highly needed to avoid crop failure.

To prevent farmers from shifting to the production of the high yielding variety, price of Tinawon rice, especially the export should be high enough to enable the farmers to receive higher income which they can use to buy more commercial rice for their consumption.

The Local Government should assist the farmers in terms of provision of simple machines like the tiller to lessen the manual labor requirement; link the farmers to better market for their Tinawon rice to increase their income. In this way they would be encourage to increase their production.



## LITERATURE CITED

- AGOOT, L. T. 2011. Fate of “Tinawon” rice depends on heritage preservation. Retrieved September 23, 2012 from <http://www.baguiomidlandcourier.com.ph>.
- AGREDA, J. 2011. Ifugao heirloom rice most adaptable to climate change.
- ANONYMOUS, 2009. Research and market. Retrieved October 24, 2009 from <http://www.researchmarkets.com>
- BAGUILAT, 1958. Palay marketing on the farm level in Nueva Ecija, Cagayan and Iloilo, 1956-57, *The Philippine Agriculturist*, 42:1.
- BULAYUNGAN, V. D. 2011. Tinawon packaged locally and abroad. September 23, 2012 from [www.businessmirror.com.ph](http://www.businessmirror.com.ph).
- BRETT, J. 1983. *The Social Dynamics of Irrigation in Tutukan Society*. Cordillera Studies Center Monograph Series 2. (October- November. 1983). Baguio City: University of the Philippines College Baguio.
- CECAP and PHILRICE. 2000. *Highland Rice Production in the Philippines Cordillera*. Nueva Ecija: Central Cordillera Agricultural Programme and Philippine Rice Research Institute. P. 6-10.
- COMILA, Z. B. 2003. *Profile of vegetable marketing operation at the La Trinidad Vegetable Trading Post*. Unpublished BS Thesis. Benguet State University. La Trinidad, Benguet P. 4.
- CONKLIN, H. C. 1980. *Ethnographic Atlas of Ifugao*, New Haven and London Yale University Press. P. 14-34.
- DE GUZMAN, J. A. 2008. *Sensory Evaluation of Fish Patties in La Trinidad, Benguet*. Unpublished BS Thesis. Benguet State University, La Trinidad, Benguet. P. 9.
- DEL ROSARIO, M. B. 2007. *An assessment on the Market Potential of Cacao Polvoron*. Unpublished BS Thesis. Benguet State University. La Trinidad, Benguet. P. 6.
- DIMOC, A. G. 1994. *Indigenous Rice Cultivation Practices observed by Farmers in Hingyon, Ifugao*. Unpublished BS Thesis. Benguet State University, La Trinidad, Benguet. P. 12.
- DOMOGUEN, R. L. 2007. *Uplifting the multi functional roles of the rice terraces*. Published. ZigZag Weekly Newspaper. P. 4.
- DOMOGUEN, R. L. 2009. *Ifugao Tinawon Rice Export Market Opens*. Retrieved September 23, 2012 from <http://www.agribusinessweek.com.ph>.



- DUMALIGAN, E. 1981. Farming system of Balbalan, Kalinga ,Apayao. Undergraduate Thesis, MSAC, La Trinidad, Benguet. P. 1.
- ELMORE, J. R, H. HAYMANN, J. JOHNSON, and J. HEWETT. 1999. Preference mapping Relating acceptance of creaminess to a descriptive sensory map of semi solid. 10 (6): 465-75.
- GATCHALIAN, M. M. 1989. Sensory evaluation methods for qualifying assessment and development. P. 227-228.
- KOTLER, P. 1991. Marketing Management (Analysis, Planning, Implementation and Control). P. 5.
- LEE, C. 2006. Pagkaing Pinoy. The most Popular Recipes of the Philippines. P. 48.
- MIRANDA, G. S. 1983. Basic Marketing. L & G Business House, Philippines. Pp. 2-5.
- LIWONGAN, O. D. 1999. Implementation Strategies on the Rehabilitation project of the Ifugao Terraces Commission: Ann Appraisal. BS Thesis. Benguet State University. La Trinidad, Benguet. P. 6-7.
- PHILRICE. 2001. Varieties and Seeds. Department- Philippines Rice Institute. P. 5.
- RIVEROS, F. 1999. Proceeding of the 18<sup>th</sup> Session of the International Rice Commission. International Rice Research Institute, Los Banos, Laguna. P. 43.
- ROBBINS, S. P. 1988. Management: Concepts and Application. Prentice-Hall International, Inc. 2<sup>nd</sup> Edition, P. 22.
- ROC, B. V. 2012. Bureau pushes organic farming in Ifugao. Retrieved September 23, 2012 from <http://www.bworldonline.com>.
- SALBINO, V. B. 2006. Marketing Practices of flower shop owners in selected areas in Pangasinan and La Union . Unpublished BS Thesis. Benguet State University. La Trinidad, Benguet. P. 7-8.
- STANTON, W. 1977. Fundamentals of Marketing Philippines. Copyright 1978. Pp.171-172.
- STANTON, W. 1984. Fundamentals of Marketing. Mc Graw Hill Book Company, New York. Pp. 36-39.
- TAYABAN, A. L. 1996. Baseline Study on Rattan Production and Marketing in Four Selected Municipalities of Ifugao. Unpublished BS Thesis. Benguet State University. La Trinidad, Benguet. P. 7-8.

