

RICE FARMING METHODS, TOOLS, AND INDIGENOUS PRACTICES AND BELIEFS OF ITAWES FARMERS OF TUGUEGARAO CITY

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Abstract— Agriculture is very essential in sustaining and building a country, as it provides food and livelihood to the people and to the economic growth of a country. Most of the developing countries, like the Philippines have a high percentage of population and majority are living in rural areas and their primary livelihood is rice farming. This study aimed to determine the different farming methods, tools, practices and indigenous beliefs of the Itawes farmers of Tuguegarao City. Using purposive sampling through site selection and networking approach, 40 rice farmers were selected from the chosen barangays as the participants of this study. Interview, observation and documentation were used to gather the needed data. The result showed that the Itawes rice farmers of Tuguegarao are engaged in traditional ways of farming. They still use traditional tools and equipment in planting and harvesting grains. The rice farmers are practicing their traditional animistic beliefs for good luck and thanksgiving for their good harvest. Also, participants are hesitant to adopt the use of the modernized machines in rice farming due to lack of financial capabilities and low skills in terms of technological competence.

Keywords— *Rice Farming, Traditional Methods, Traditional Tools, Traditional and Indigenous Beliefs, Itawes Farmers, Tuguegarao City*

INTRODUCTION

Most of the developing countries have a high percentage of population and majority are living in rural areas and their primary livelihood is farming. Most of the world's people who live in rural areas are poor and contrariwise. Merriam- Webster (2003), defined farming as a practice of agriculture or aquaculture, activity or business of growing crops and raising livestock. According to World Bank statistics, agriculture in the Philippines employs 47% of the Filipino workforce as of 2013. Gollin (2010) states that agriculture has a large contribution in the economic activity of a country especially in a developing countries, with some 25% of the GDP in the poor countries are coming from the sector of agriculture. The sheer size of the agricultural sector implies that changes affecting agriculture have large aggregate effects. For countries with large population and have less access to international markets,

the improvement and development of agriculture is very essential for economic growth. Growth led by agriculture will depend on the relative feasibility and cost of importing food. In a comprehensive review, the productivity and economic growth of agriculture notes that the correlation between agricultural productivity and economic growth is well documented; however, because of econometric identification, less is clear about the causal relationship between the two. Further notes that despite this, agriculture remains important for economic growth in many developing countries. Further, agriculture has the export generating capacity, particularly for economies that are in their early stages of development and heavily reliant on primary resources (Dethier and Effenberger, 2011; Johnston and Mellor, 1961; Lewis, 1954). It is also argued that the relationship between agriculture and overall economic growth is dependent on the degree of openness, productivity in agriculture sector versus non-agriculture, and the pace and effectiveness of industrialization strategy (Gollin, 2010 and Dercon, 2009).

The Philippines has been one of the countries distributing rice in other countries. Dawe (2006) stressed that the geography of the Philippines is the reason why it became a net importer of rice. The Philippines which has little arable land suitable for growing rice and lacks those large river deltas, are present in traditional exporting countries. The Department of Agriculture (2014) declared that the Cagayan Valley region persist to be the top rice producer in the Philippines and Cagayan province as second in rice production. Alviar (2014) said that the Cagayan Valley was able to harvest 22.98 percent of the total rice production and of that 2.08 million metric tons rice production as of 2013, the province of Cagayan contributed much to the rice production with 724,622 metric tons.

Tuguegarao City which is located in Cagayan Valley is now a component city that once became a first class municipality. Tuguegarao City is considered as a commercial city because it is considered as the center of trade and industry. Tuguegarao City, Cagayan is a big city in terms of area with 14,

480 hectares and its socio-economic rate is very high. However of the growing and rapid improvement of the industries and infrastructure of this city still many people living here considered farming as their primary source of income with the use of traditional techniques, methods and beliefs in farming.

In this modern world, the government focuses more on infrastructures and technologies instead of developing agriculture. The Government keeps on proposing new technologies to use in farming but still not all farmers can afford to buy or generate new technologies for farming especially farmers from the rural area due to lack of capital and financial capabilities. As a result, they rely on traditional ways of farming. Hence, this study was conducted to determine the different rice farming methods, tools and indigenous beliefs used by the Itawes farmers of Tuguegarao City.

METHODS

This study employed qualitative type of research. Ethnographic method was used to determine the different traditional methods, tools and beliefs of Itawes rice farmers of Tuguegarao City, Cagayan. The participants of this research were 40 Itawes rice farmers of Tuguegarao City, Cagayan. In order to identify and gather the participant-farmers, purposive sampling was used through site selection approach and networking utilizing the following set of criteria: (1) must be a resident of Tuguegarao City (2) must be a rice farmer either land owner or a tenant (3) and his ethnicity is Itawes.

This study was conducted in Tuguegarao City, Cagayan. Tuguegarao City is composed of 49 Barangays which are mostly classified as urban because it has mixed residential, commercial and agricultural sites. And most of the rural barangays have a large agricultural land. The participants of this study are from the four (4) chosen barangays which are Libag Sur, Libag Norte, Gosi Sur, and Dadda because of its large territories allotted for rice farming.

Interviews, observations, and documentation through the use of camera and field diary were utilized to determine the different rice farming methods, practices, indigenous beliefs and rice farming tools and equipment of the Itawes farmers of Tuguegarao City. Under interview, in order for the participants to understand the question clearly and have a good flow of conversation the researchers used local language such as Itawes and Tagalog since most of the participants are using these languages.

RESULTS

A. Profile of the Participants

Table 1. Profile of the Participants

PROFILE VARIABLE	FREQUENCY	PERCENTAGE
Sex		
Male	27	67.50
Female	13	32.50
Total	40	100.00
Age Bracket		
20yrs. old and below	3	7.50
21yrs.old – 30 yrs. Old	6	15.00
31yrs. old – 40 yrs. Old	7	17.50
41 yrs. old – 50 yrs. Old	9	22.50
51 yrs. old – 60 yrs. Old	7	17.50
61yrs. old – 70 yrs. Old	8	20.00
Mean Age	44	
Civil Status		
Single	8	20.00
Married	29	72.50
Widow	4	10.00
Total	40	100.00
Educational Attainment		
No Formal Education	8	20.00
Elem. Undergraduate	16	40.00
Elem. Graduate	4	10.00
High school Undergraduate	5	12.50
High school Graduate	3	7.50
College Undergraduate	2	5.00
College Graduate	2	5.00
Total	40	100.00
Years of Farming		
10 – 20 years	10	25.00
21 – 30 years	8	20.00
31 – 40 years	13	32.50
41 – 50 years	9	22.50
Mean Years of Farming	31	
Rice Farming Status		
Owned	21	52.50
Tenant	19	47.50
Total	40	100.00

Table 1 shows the profile of the participants when grouped according to sex, age, civil status educational attainment, years of farming and rice farming status. In terms of sex, most of the Itawes rice farmers of Tuguegarao City are male, meanwhile in terms of age, majority of the rice farmers belong to the 41 to 50 year old cluster of an average mean age of 44. In terms of civil status, it showed that most of the rice farmers are married. It can also be gleaned in the table that almost half of the participants of Tuguegarao City, Cagayan are elementary undergraduate. In addition, most of the participants indulged in rice farming for 31 to 40 years with an average mean year of 31. The results further

revealed that there is almost equal number of both farm owners and tenants in terms of their farming status.

B. Rice Farming Methods Used by Itawes Tuguegarao Farmers

Table 2. Rice Farming Methods

PLANTING		
Methods	Frequency	Percentage
Transplanting	29	72.50
Direct Seeding	11	27.50
Total	40	100.00
HARVESTING		
Hitting- Rice	9	22.50
Thresher	31	77.50
Total	40	100.00

Table 2 presents the different methods in planting and harvesting rice used by Itawes farmers of Tuguegarao City. In planting, the methods used by the participants are transplanting and direct seedling. In harvesting, thresher and hitting rice are the methods being employed by the Itawes farmers of Tuguegarao City

C. Traditional Rice Farming Tools Used by Itawes Farmers of Tuguegarao City

Table 3. Rice Farming Tools

Tools	Frequency	Percentage	Rank
<i>Gapas</i>	40	100.00	1
<i>Kareta</i>	38	95.00	2
<i>Suyud</i>	32	80.00	4
<i>Thresher</i>	28	70.00	5
<i>Bilaw</i>	27	67.50	6
<i>Saki</i>	36	65.00	3
<i>Aradu</i>	24	60.00	7
<i>Padanum/Bomba</i>	21	52.50	8
<i>Chakut</i>	19	47.50	9
<i>Kalekay</i>	16	40.00	10
<i>Hand Tractor</i>	14	35.00	11

<i>Daleday</i>	13	32.50	12
<i>Kuliglig</i>	10	25.00	13
<i>Backpack Sprayer</i>	5	12.50	14

Descriptions of the Different Tools Utilized by Itawes Farmers of Tuguegarao City

“Gapas”

– term used by the Itawes that refers to an agricultural hand- held tool with a variously curved blade used for cutting grass or harvesting grain crops.

“Hand Tractor”

- it is used to pull a harrow and plow in preparing a large area of land.

“Thresher”

- a machine used for separating grain crops into grain or seeds and straw.

“Backpack Sprayer”

- a spraying apparatus consisting of a knapsack tank together with pressurizing device, and sprayer nozzle, used chiefly in fire control and in spraying fungicides or insecticides.

“Kuliglig”

- term used by the Itawes which refers to an improvised hand tractor vehicle composed of two- wheeled tractor on front and two- wheeled trailer at the end that was used in daily transportation and carrier of some farmers.

“Aradu”

- term used by the Itawes which refers to a traditional plow with the use of carabao to pull through the rice paddy.

“Padanum/Bomba”

- term used by the Itawes which refers to a machine used to increase the pressure of water to move it on another place to supply water in the rice field.

“Bilaw”

– term used by the Itawes for native flat tray to separate the heavier seeds from the empty or lighter ones and from dust panicles and straw which may contain or attract insects.

“Daleday”

– term used by the Itawes known as ulnas. This is an all-purpose utility sled of wood and bamboo that is hitched by *nuang* (carabao).

“Suyud”

– term used by the Itawes for a big rake to get the grasses and to push the excess of mud into another place to finish the plaining of the rice field.

“Kareta” - term used by the Itawes that refers to traditional carabao driven rice field carriage.

D. Traditional Beliefs and Practices with regard to Rice Farming in Tuguegarao City, Cagayan

a. Offering of Head, Organs, and Feet of Native Chicken (*Manut*)

They use native chicken as one of the offering before planting to honor the gods or spirits and after harvesting for their thanksgiving. Some of the Itawes rice field farmers offer only the blood but others offer either of the head, organs or feet of the chicken. While some combine the sauteed head, feet, organs and blood for *tunnag* (offering). The organs of the chicken symbolize the good production of grains.

Procedure:

1. Cut the neck of the chicken to get the blood and put it in a container.
2. Put the chicken in a boiling water to easily remove the feather.
3. Separate the organs, feet and head of the chicken from the body.
4. Saute the organs, feet, head and the blood of the chicken.
5. The sauted parts and blood of the chicken will put together.
6. It will be put in any corner of the rice field.

b. Offering a small cup of Gin (*Binarayan*)

Most of the Itawes rice farmers used gin as an offering because of its affordability in Philippine market and it hooked the taste preference of the farmers. They put it on a plastic cup to offer before planting and after harvesting. This is to rid the unwanted spirits or entities and welcome the desirable spirits. Some

of the rice farmers also do this to bring good luck and thanksgiving.

Procedure:

1. Put a small amount of liquor (Ginebra San Miguel Gin known also as *bilog*) in a plastic cup or any container.
2. Place it together with the other *tunnag* (offer) like the sautéed organs and other body parts of the chicken and the rice.

c. Offering a scoop of Harvested Rice (*Baggat*)

They put it in a small container to offer before planting and harvesting for fertility and hope. The rice is from their harvest in order for them to have a good harvest in the next cropping season.

Procedure:

1. Choose the best rice to offer in order to have a good quality of rice in the next harvesting.
2. Put a small account of rice in a container and put together with the other offering.

d. Offering of Homemade Coconut Oil (*Denu*)

This procedure was used by one of the participants in making a homemade coconut oil. Coconut oil was believed by the farmers as a lubricant to prevent bad lucks and the coming of pest in rice field.

Procedure:

1. Shave off as much of the outer shell of the coconut.
2. Cut the coconut in half with a knife. Drain the coconut milk into jar.
3. Scoop out the meat of the coconut with chinsel and place the meat into a bowl.
4. Add 3 cups of warm water in every 2 cups of coconut meat.
5. Separate the liquid from the coconut meat.
6. Boil slowly the liquid until it becomes oil.

7. Put small amount of oil in a container and put it together with the other offerings.

e. Offering of Rice Cake (*Dekat*)

Almost all of the rice farmers used the *pinassug* or Biko rice cake as their offer. Other cooks the sticky rice without any other ingredients. This is offered by the farmers in order to have good fortune to stick and to have a good harvest.

Procedure:

1. Prepare at least 2 cups of sticky rice or glutinous rice.
2. Separate the liquid from the coconut meat.
3. Put water into the sticky rice and cook it in a low fire.
4. Melt the sugar (brown sugar) in the liquid of coconut.
5. Mixed the cooked sticky rice with the liquid of coconut with melted sugar.

f. Burning the Rice Residue (*Massidug*)

The burning of the rice residue is made if the harvest is not good. It is believed to burn and to rid the bad luck for rice planting. Also, Itawes farmers believed that the burning of the rice residue will bring a good production of crops in the next harvesting.

DISCUSSION

The aim of this study was to determine the different rice farming methods, tools and indigenous beliefs of the Itawes rice farmers of Tuguegarao City, Cagayan. It was revealed that in terms of sex, the male rice field farmers dominate than female rice field farmers in Tuguegarao City, Cagayan. This shows that male farmers are acting as the farm managers. It was also shown that most of the Itawes farmers belong to the cluster of 41 to 50 years old. Pangilinan (2014) stressed that the average age of the farmers in the Philippines is 57. This is only few years away from the mandatory retirement age of 60 and 65. This is also attributed to some factors in experience and readiness of rice farming. On the other hand, in terms of the civil status of the participants, it was revealed that almost all are already married. It was also revealed that almost all of the

participants are elementary undergraduate. The average level of educational attainment of the rice farmers is in grade 5 only. The result of the interview revealed that before farmers have not realized how important education is in their life especially during their childhood days. One interviewee said that, “*awan kakwartu mi antare sayang laman pang gatang langin kang makan*” (we have no money and I’m just wasting my money so I rather just buy foods). Saliot (2014) stipulated the limited education make less receptive to new farming technologies that can boost yields in the face of growing losses from volatile weather. It was also revealed that most of the participants indulged in rice farming for 31 to 40 years. This shows that expertise can be attributed, in part, to greater experience in rice farming and they lived on the land they presently cultivate. The result further revealed that there is almost equal number of both farm owners and tenants in terms of rice farming status.

The study also revealed that there were two rice farming methods which were used by the Itawes farmers in Tuguegarao City, Cagayan. After preparing the rice field, almost all the participants were using transplanting method in planting. In harvesting, thresher was primary used by the participants to separate grain crops from grain. In transplanting, seedlings are already prepared and ready for transplanting in the field. Transplanting is done in one of the two methods: Random method, in which seedlings are transplanted without a definite distance or space between plants. Straight- row method, on the other hand follows a uniform spacing and distance between plants. Direct seeding is the other method of growing rice which focuses on direct seeding rice with dry land preparation. In harvesting, thresher is the most common method used by the participants in separating grain crops from grain or seeds and straw. “*Palpag*” (hitting-rice) was also used by the participants when There is no thresher available. This method is to hit harvested rice into a hard material in order to separate the grains from the plant, in a paddy field.

On one hand, the study also revealed the traditional tools and equipment used by the Itawes rice farmers of Tuguegarao City, Cagayan. The traditional tools and equipment being utilized are *Gapas* which refers to an agricultural hand- held tool with a variously curved blade used for cutting grass or harvesting grain crops; *hand tractor* used to pull a harrow and plow in preparing a large area of land; *Thresher* is a machine used for separating grain crops from grain or seeds and

straw; *Backpack Sprayer* a spraying apparatus consisting of a knapsack tank together with pressurizing device, and sprayer nozzle, used chiefly in fire control and in spraying fungicides or insecticides; *Kuligli* which refers to an improvised hand tractor vehicle composed of two- wheeled tractor in front and two- wheeled trailer at the end that was used for daily transportation and carrier of some farmers; *Kareta* which refers to a traditional carabao driven rice field carriage; *Aradu* which refers to a traditional plow with the use of carabao to pull through the rice paddy; *Padanum/Bomba* which refers to a machine used to increase the pressure of water to move it on another place to supply water in the rice field; *Bilaw* Itawes term for native flat tray, to separate the heavier seeds from the empty or lighter ones and from dust panicles and straw which may contain or attract insects; *Daleday* known as ulnas this is an all- purpose utility sled of wood and bamboo that was hitch by *nuang* (carabao); *Suyud* a big rake that is use to get the grasses and to push the excess of mud into another place to finish the planning of the rice field; *Saki* is a tray use to load the rice grain after drying it under the sun; *Kalekay* rake, used for drawing together the rice grains that was being dried. These are the traditional tools and equipment used by the Itawes farmers for preparing the rice field, planting to harvesting grains. Sekgowa (2012) states, most of the people living in rural areas are poor and only through farming where they could get their needs to support their families. Marginalized or poor people who cannot afford to buy new farming tools and equipment are stick on their traditional ways of farming. Conrad (2013) and Saliot (2014) farmers are still using the traditional ways of farming due to lack of financial capabilities and knowledge to use the new farming technologies or the modern ways of farming.

In view of the traditional beliefs and practices with regard to rice farming in Tuguegarao City, Cagayan, the findings revealed that all of the participants use “*manut*” (chicken) for their thanksgiving. They use native chicken as one of their offerings before planting to honor the gods or spirits and after harvesting for their thanksgiving. Some of the Itawes rice farmers offer only the blood of the chicken while others offer the head and the feet of the chicken. The organs of the chicken are to produce a good grain. “*Binarayan*” – term used by the itawes which refers to liquor especially gin. This gin was used for offering because of its affordability in Phillipine market. They put it on a plastic cup to offer before planting and after harvesting. This is to rid the unwanted spirits or entities and welcome the desirable spirits.

Some of the Itawes rice farmers also do this to bring good luck and thanksgiving. “*Baggat*”- term used by the itawes which refers to rice. They put in a small container to offer before planting and harvesting for fertility and hope. The rice that is to offer is from their harvest in order to produce again a good harvest. “*Denu*” – term used by the itawes which refers to oil. This is a homemade coconut oil. Coconut oil was believed by the farmers as a lubricant to prevent bad lucks and the coming of pest in rice field. “*Dekat*” – term used by the itawes which refers to glutinous rice or sticky rice. Almost all of the Itawes rice farmers use the *pinassug* or Biko rice cake. Others cook the sticky rice without any other ingredients. This is offered by the farmers in order to have good fortune to stick and to have a good harvest. “*Massidug*”- term used by the Itawes which refers to burning of rice residue. This belief is made if the harvest is not good in order to burn and rid off the bad luck for rice planting. Also the farmers believed that it will bring good production for the next harvest. There is a scientific reason why farmers burn the rice residue is to remove or incorporate into the soil, to make it as a fertilizer and to prepare the fields for the next rice crop.

CONCLUSION

The findings of this study revealed that the Itawes rice farmers still practice the traditional ways of rice farming. Still Itawes rice farmers are using the traditional tools and equipment in planting and harvesting grains. The participants practice their traditional animistic beliefs for good luck and thanksgiving. Participants are hesitant to adopt the use of the modernized machines in rice farming due to lack of financial capabilities and low skills in terms of technological competence.

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