The Low External Input and Sustainable Agriculture (LEISA) Women Farmers in Camangaan, San Nicolas, Pangasinan

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Abstract *- This study on Low External Input Sustainable Agriculture (LEISA) of women farmers in Camagaan, San Nicolas, Pangasinan was undertaken to examine the contribution of women farmers to agricultural productivity and environmental sustainability. Personal interviews and survey methods were used . The LEISA of women farmers , like their husbands, managed their owned or rented farms and do all farming including making carbonized rice hull for their farms. They showed concern to their environment. Women farmers, therefore, should be trained further in utilizing their agricultural wastes by the concerned entities to maximize the use of the available resources.*

Keywords *- Agricultural Productivity, Environmental Sustainability, Landholdings, LEISA*

INTRODUCTION

In Pangasinan, about 98% of farmers are males with less than a hectare of landholdings. The wives of farmers usually play as support or helpers in rice farming activities. Their economic contribution are not recognize in gross nor net national product. Hence, women are regarded as invisible in the economic realm.

In Camangaan, San Nicolas, Pangasinan, five married women directly engage themselves as managers of the rice farms they till. They started their farm operations in 2008. They did land preparation to harvesting which men usually do and even up to marketing.

The five women are members of a multi-purpose cooperative whose founding members are couple farmers. They are not only concern with agricultural productivity but also environmental sustainability.

OBJECTIVES OF THE STUDY

Generally, this study sought to find out what made these women farmers differ with the other farmers.

Specifically, it aimed to determine their:
1. socio-economic profile
2. rice farming and income, and
3. rice waste utilization

Significance of the Study

Results of this study would be particularly useful to the women farmers, advocate of women empowerment, environment and natural resources planning officers and conservationists, agroindustries and policy makers at the local level.

Further, this study would be significant to other rice farming academe, research and environment related government and non-government institutions and use the strategies and findings in planning and implementing their rice waste utilization and management.

Definition of Terms

Low External Input Sustainable Agriculture (LEISA) refers to an agricultural system that gradually converts the farming system from conventional to organic for at least two cropping

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seasons. LEISA could generate an estimate of 4,250 kg rice straw and 765 kg rice hull in a ha.

Rice waste utilization refers to the way farmers harvest, sale, offer, trade and or utilize their rice waste by-product into a more useful but economically and environmental friendly form.

MATERIALS AND METHODS

Descriptive research techniques were employed in gathering data. Personal interview and survey were used. Data gathered were statistically analysed using SPSS version 16.0

Secondary data were gathered from various documents while primary data were taken with the use of questionnaire to gather socio-demographic data.

Secondary baseline information such as documents, maps, and sketches and data such as rice yield per municipality were obtained from the municipal development office and local Department of Agriculture (OCA/OMA) and Office of the Provincial Agriculturist. of questionnaires to the rice farmers.

RESULTS AND DISCUSSION

Socio- Demographic Profile of the Women Farmer Respondents

Table 1. Socio-demographic profile of LEISA women farmers in Camangaan, San Nicolas, Pangasinan

Age category	Educational attainment	Farm ownership	Landholdings (ha)
Early adult (1)	College level	owned	Less than 2
Middle age (3)	High school graduate (1), college level (1), vocational level (1)	owned	Les than 2
Adult (1)	High school graduate	owned	Less than 2

Age Category. Three of the women farmer respondents fell under the category of middle age. One female was in her early adult and one in old age.

Civil status. All these female respondents were married.

Educational attainment. One early adult and a middle aged women farmers respondent reached college level. The two middle aged respondents graduated in high school and reached college level, respectively. The adult female respondents finished high school.

Rice Farming and Income

All the five women managed their own rainfed rice farms and observed one cropping season (June-October) a year. Like male farmers, they rented and hired a plowing machine, the usual farm practice in the place. Rainfed-lowland variety of rice were transplanted in June –October. The rainfed-lowland variety of rice seeds used were bought at certified suppliers, sown in a designated seed bed and later transplanted in the rice farm. Home prepared organic or sometimes bought commercial organic fertilizer and carbonized rice hull (CRH) were applied as fertilizer and soil conditioner, respectively.

The applied organic fertilizer to their farm resulted to loosened and moistened soils. The use of organic fertilizer were preferred for health and environmental sustainability reasons.

The price of selling paddy rice per kilogram ranged from P13- P28. Most of the time, the price charging was P28.00 /kilogram due to use of organic fertilizer.

Rice Waste Utilization

The rice straw and rice hull wastes were utilized further by women farmers. They did not burn the rice straw instead compost it in their backyard. The rice hull were converted into carbonized rice hull (CRH) and sold for P 40- 75. The rich hull ash used by rice cracker and native cakes industries were further converted to soil conditioner and sold to farmers.

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Summary

The educated LEISA women farmers find it easier to manage their farms and rice wastes.

Rice farming activity by women did not differ with men. Like men farmers, they hired a machined plower to plow or till the land. LEISA women farmers were not only focused on agricultural productivity i.e soil and economic productivity but environmental sustainability. They did carbonized rice hull (CRH).

An increased of 31% in their rice production income while an increased of 18% in rice hull conversion. Such increase help these women more or less independent from their husband's income.

CONCLUSION AND RECOMMENDATION

Women farmers of Camangaan, San Nicolas, Pangasinan met their financial needs and more responsible in advocating materials and energy conservation for the sustainability of their farms and health of the environment. Women farmers differ with men farmers by utilizing the rice waste into a more usable form i.e rice hull, rice hull ash and others which also augment their income from farming.

Gender and development enthusiast and researchers should conduct further study relative to LEISA and rice farming**.**

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