AGROECOSYSTEM ANALYSIS OF BARANGAY PALAKIPAK, ROSALES, PANGASINAN, PHILIPPINES

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APPROVAL AND ACCEPTANCE

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AGROECOSYSTEM ANALYSIS OF BARANGAY PALAKIPAK, ROSALES, PANGASINAN, PHILIPPINES[1]

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ABSTRACT

Background: Agroecosystem analysis (AEA) was used to find out the current situation of the farms and needs of the farmers in enhancing the production of the current land utilization types (LUTs) and to determine its sustainability using three (3) indicators: productivity, economic viability and ecological soundness. **Methods:** Primary and secondary data were collected from different local government offices in the Municipality of Rosales, Pangasinan. Primary data includes face-to-face interview with a total of sixty-three (63) farmers, soil sampling, and determination of soil physical and chemical properties such as soil major nutrients (NPK), pH, soil color and soil texture. Secondary data includes the biophysical characteristics of the barangay, agricultural profile of the barangay, and climatic data. **Results:** The soil resource condition assessment includes soil texture and color. The soils in the farms were found to be clay loam and light yellowish brown in color. The soil test results revealed medium to low nitrogen and phosphorus and sufficient in potassium, with pH range of 6.0-6.5 which corresponds to slightly acidic. The land capability class of the farms in barangay falls under IIs-9 with nutrient availability as limitation and crop suitability for rice found to be S3n described as marginally suitable. The sustainability assessment of the rice farms for the wet season of 2016 was low with an index of 0.29. **Conclusions:** Due to high costs of inputs and regular use of chemical fertilizers and pesticides and without the use of organic fertilizer, the sustainability indices of rice-corn farms in terms of productivity, economic viability and ecological soundness were low. These farms need a large development to increase productivity. Crop cultivation in both wet and dry seasons with right application rate and timing of fertilizer application are good measures in improving the quality of the soil as well as the yield of the crops.

Keywords: agroecosystem, agroecosystem analysis, sustainability

Chapter I

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