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Derivatif Analysis of Economic and Social Aspect of Added Value Minapadi (Paddy-Fish Integrative Farming) a Case Study in the Village of Sagaracipta Ciparay Sub District, Bandung West Java Province, Indonesia.

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Abstract

Minapaddy is not something new again among farmers and fish farmers. Minapaddy cultivation taking into consideration the local wisdom in a region. Fish species cultivated in rice mina system, especially in the area of West Java, namely *Cyprinus carpio, Oreochromis mossambicus, Oreochromis niloticus, Osteochilus vittatus.* This research was to analyzing added value of derivative fish seed from system minapadi viewed from the socio-economic aspects. The method used feasibility analysis and described quantitatively. Based on research results of derivative value-added fish seed from the seed to the system minapadi namely freshwater aquaculture for fish seed consumption. other derivative products of salvage seeds processed into "baby fish" and the ornamental fish feeds. Minapadi can minimize the risk of losing a source of income for farmers and fish farmers.

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Keywords: Fish seeds; minapadi; value added.

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1. Introduction

Development of farming systems is one way to increase the income of farmers and their families, because of the technology applied in such systems have considered the importance of the interaction between components and their relation to activities outside of farming systems and the importance of the role of bio-physical, socio-cultural, institutional, and economic conditions dynamic.

Integratif farming system paddy-fish referred to minapaddy (Paddy-Cum-Fish Culture) is not something new again among farmers and fish farmers. Integratif farming system an integrated farming system to increase the productivity of paddy fields were able to produce rice and fish. Minapaddy cultivation system had long since been done by farmers, but as time went on limited natural resources, especially water resources become limiting in the production of minapaddy, is what makes the exotic in the cultivation of minapaddy taking into account local knowledge in a given area. Adiwilaga (1972) agriculture is the human activity cultivate the ground with a view to obtaining the results of plant or animal results without result in reduced ability of the land concerned to bring the next result.

The science of farming studying internal affairs of farming which includes organization, operation, financing and sales, about farming as a unit or units of production in the overall organization. Declared that the science of farming is the liaison between the agricultural engineering science and social agricultural science by constantly organizing and repairing the presence in the agricultural sciences. To be able to overcome the problem of increasing productivity and crops in agricultural development, can be done in two ways as proposed (Clayton, 1964) namely, to improve the allocation of resources owned by farmers, including land use and improvement of the combination of branches of farming, as well as introduce new resources in the form of capital, labor and new technologies.

The allocation of resources controlled by the farmers is important, because the optimal use of resources does not mean a cost to farm management. As a result, the advantages of farmers as farm manager to be not optimal. In choosing a combination of farming branch in their farming patterns, in general, farmers that aims to: (i) meet the needs of family food consumption; (ii) obtaining revenue; (iii) leveling the spread of use of family labor, and reducing the business risks that will face (Utami, 1977). In the system integration of crop farming these animals known concept LEISA (Low External Input Sustainable Agriculture), which is a sustainable agricultural systems by minimizing the influence from outside. The application of this concept is as follows: (i) optimize local resources; (ii) maximum results; (iii) results in crop diversity; (iv) by using local resources are managed properly it will create good quality, causing marketable surplus and (v) increase the independence (Suriapermana, 1994).

Agriculture including freshwater aquaculture in a region can not be separated from the characteristics of the natural resources contained therein. This characteristic is characterized by a variety of factors, among others: local topography, soil fertility traits, solum soil, rainfall and distribution of rainfall as well as a cover crop that is on it. Various aspects will determine the suitability of land which naturally will determine the level of productivity. Climate change conditions that occur at this time, rice mina is a rational choice in optimizing paddy farmland. Conditions of relatively high rainfall and the government's plan to improve the irrigation channels in order to improve food security and animal protein as well as the fulfillment of the needs of business diversification opportunities in increasing the family income.

Mina paddy cultivation of rice cropping pattern consists of two patterns that can be done in a single growing season, the pattern interval time and intercrop. Interval time pattern pisciculture in the fields before the rice planting, pending the outcome of the rice seedlings to be planted so-called fish panyelang while cropping intercropping is the maintenance of fish together with rice in a paddy field. Types of fish farmed on the system mina paddy, especially in West Java, namely carp [*Cyprinus carpio* (Linnaeus, 1758)], tilapia fish [*Oreochromis mossambicus* (Peters, 1852)], tilapia [*Oreochromis niloticus* (Linnaeus, 1758)], fish nilem [*Osteochilus vittatus* ((Valenciennes, 1842)] and many more species of freshwater fish can be cultivated with rice mina system. Habits of farmers who cultivated rice mina using this type of carp carp (*Cyprinus carpio*) is currently being developed for tilapia nirwarna species to cultivated rice through the system mina paddy.

Various types of fish that are commonly grown in paddy fields (local namely is *carp, tawes, nilem, tilapia*) could also be developed prawns which have a higher selling price than fish. Selection of fish species is based on several factors, such as the volume of water, availability of seed, feed, market, and habits of farmers. Unlike the products in the manufacturing industry, agroindustry which include vegetable has the following specific characteristics: (i)