



ANALYSIS OF AQUACULTURE LAND CONVERSION IN CILEUNYI SUBDISTRICT OF BANDUNG DISTRICT, WEST JAVA, INDONESIA

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Abstract. The increase in activity and population who are part of the development lead to competition and land use conflicts in terms of residential development, infrastructure and economic means. Sub-district of Cileunyi is a suburb area that becomes the target of conversion because it has a lot of unbuilt land such as ponds of aquaculture farms. The purpose of this research is to analyze the performance of fishery cultivation business and analyze the rate of conversion of aquaculture field in sub-district of Cileunyi along with the factors that influence it. The research using survey method, and logistic regression model analysis. The result of the research shows that the conversion of aquaculture land in Cileunyi sub-district progressively occurred in the period of 2009 to 2014 with an average conversion rate of 26,49% per year and the factors that are predicted to influence the decision of the farmer in converting the aquaculture land such as size land area, productivity, profit, and selling price of land, based on the results of research using logistic regression analysis model simultaneously

Keywords: *Development, land conversion, logistic regression*

Introductions

The continued conversion and development of aquaculture land pose a serious threat to the fishery services derived from aquacultured landscapes. We argue that developing an understanding of the full range of consequences from aquaculture conversion requires understanding the effects of such conversion on both components of ecosystem services: products and processes. However, there are unavoidable challenges involved in quantifying the threats from aquaculture conversion and their related costs to human well-being.

First, most attempts to quantify the costs of aquaculture conversion on ecosystem services will necessarily rely on specific ecological science that is often emerging, changing, or simply nonexistent. For example, the role that many species play in ecosystem processes is poorly understood.

Second, given the interconnected nature of ecosystem products and processes, any attempt to quantify the effects of aquaculture conversion must grapple with jointness in production. For example, the cost of losing a species from aquaculture conversion must account for that species' role as both (1) a product that directly contributes to human well-being, and (2) as a component in an ecosystem process. Finally, the ecology and the human dimensions of ecosystems are highly specific to spatial-temporal circumstances. Consequently, the effects of aquaculture conversion in one spatial-temporal context are likely to be quite different than effects elsewhere.

Land conversion is a permanent change, it includes part or all of functional change from a land which is converted. Population growth is a factor influences functional shift of land. Bappeda Bandung District in 2008-2015 records that population growth in Bandung District increases to 527.650 people or in average it increases 2,7% each year, this increasing is an influence from several regions with high population and density such as in Cileunyi (Bandung Central Statistics Agency, 2016).

Cileunyi SubDistrict is a region with high growth rate with the average of increasing is 5,05-5,95% each year. The number of people in Cileunyi SubDistrict in 2014 was 192.312 people and in 2015 up to 195.384 people. This high number and increasing of the development program occurred in Cileunyi