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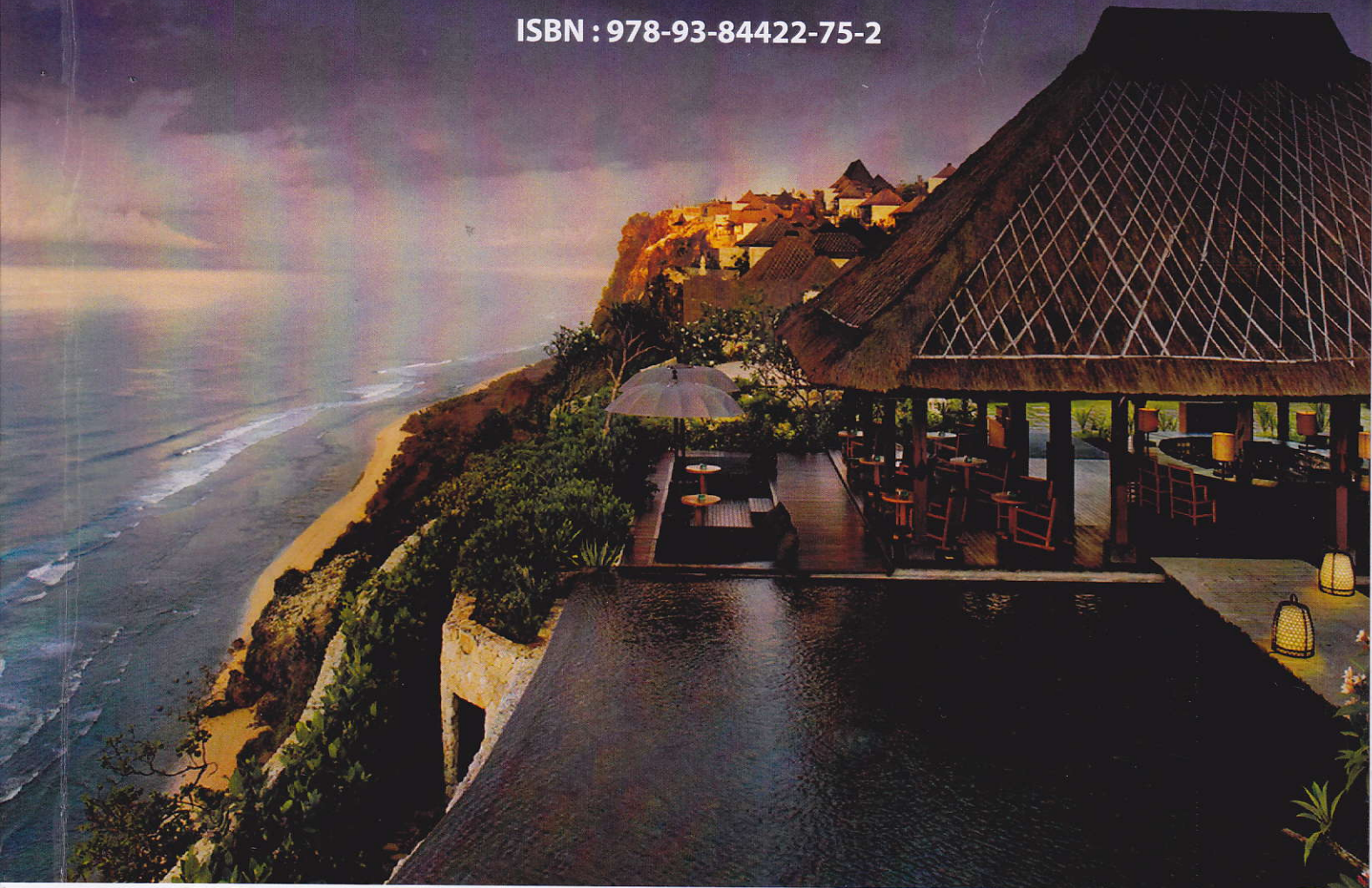
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Sustainability Status of Beef Cattle Farming Region in Bondowoso Regency for Agropolitan Area Development

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Abstract—Bondowoso Regency is a potential area for development Agropolitan based beef cattle farms. Before the development of a region-based beef cattle Agropolitan Necessary to the determination of the status of the area of sustainability. This study aim to analyze the status of the sustainability Bondowoso Regency index and the area of the five dimensions of sustainability for development agropolitan. Determination of the status of sustainability analysis using Multidimensional Scaling (MDS) with Rapid Appraisal Approach Agropolitan Beef Cattle (Rap-AGROSAPOT) and the results are Expressed in terms of sustainability indexes and status. Sensitive attributes Affect the sustainability index and the effect of the error is determined based on the analysis Leverage and Monte Carlo test. Determination of key sustainability factors obtained by prospective analysis. Sustainability analysis results showed that the ecological dimension (41.61%) and infrastructure-technology (47.05%) less sustainable status, the economic dimension (57.73%) and socio-cultural (58.05%) as well as the status of sustainable enough legal-institutional dimension (75.46%) good status. Based 70 attributes that were analyzed, 24 sensitive attributes need to be repaired because of an effect on increasing the sustainability index value. Results of a prospective analysis produced five key factors of sustainability areas, Among others: (a) availability of facilities and infrastructure agribusiness farm, (b) livestock rearing systems, (c) availability of agro-livestock market, (d) availability of feed industry, and (e) cooperative cattle. The key factors to be corrected in order to be developed into a viable regency agropolitan-based beef cattle farms.

Keywords— Beef Cattle, sustainability, agropolitan, Bondowoso Regency.

I. INTRODUCTION

Agricultural development should be able to work together with the aim of development of rural areas, namely improving the social and economic life of society. These objectives can be achieved through the development of rural-based potential as a center of growth by changing into a rural farming town known as Area Development Agropolitan. Agropolitan is a farming town that is growing and developing agribusiness system that is able to serve, pushing, pulling, and heaved agricultural development activities in the surrounding region (MoA, 2002).

Bondowoso is an agricultural area. The last few years of agricultural land in the district was facing a serious problem, namely the reduced availability of water supply from the rivers

as a source of irrigation water irrigation of agricultural land. This problem occurs because of the destruction of forest in the headwaters area. Farmers who were able to grow rice throughout the year (3 times per year), is currently only grow rice crops as much as 1-2 times a year. Reduced agricultural farming reduces the acceptance of the farmers, to handle many farmers who raise traditional (extensive) semi-intensive in order to improve reception.

Bondowoso public enthusiasm is very high on the sub-sectors of livestock, especially beef cattle breeding (Cattle *Simental*, *Hereford*, *Limousin*, *Brahman*, *Brangus*, *Peranakan Onggole*). The advantage of the beef cattle breeding is quite promising compared with a profit of farming. Moreover, the prices of agricultural inputs were increased and the availability of agricultural land is diminishing cattle raising effort more interesting to do. Cattle population over a period of three years starting from the year 2009-2011 showed a significant improvement, namely: 135 093, 141 792 and 141 794 birds (BPS Bondowoso, 2012).

Optimum benefit is obtained when the development of agropolitan management meet the criteria of sustainable development (*sustainable development*) who join between the interests of economic, social, cultural, and environmental sustainability (Saragih, 2000 and Suyitman et al., 2009). In regard, it should be assessed based on the status of sustainability of the beef cattle farms in the regency agropolitan development. The benefits of this research can be used as a reference and consideration for policy making, particularly the regency government, in order to improve the sustainability status of the area based on beef cattle farming regency for agropolitan development.

II. MATERIALS AND METHODS

Place and Time Research

The study was conducted in five districts in the regency of Bondowoso of East Java Province. Criteria for determining the location based on the research: cattle population, food availability, and accessibility of the region. Based on the consideration of these criteria, selected five districts, namely District Cermee, Wringin, Maesan, Botolinggo, and Tandu. The study began in January until June 2016.

Types and Sources of Data

The data used is secondary data and primary data. Secondary data were obtained through literature research. Primary data were obtained from field research questionnaire by the breeder and the results of

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