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Agriculture Profile and Sustainability in Okinawa Prefecture Japan and East Java Province of Indonesia and Its Future Development

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ABSTRACT

East Java Province's agricultural profile from the past 20 years identified the change in crop varieties which cultivate all over the rice field area. The accelerating agricultural intensification over the past 20 years raises concern about whether East Java farming is ecologically sustainable, and how about the future sustainability. Similar pattern on agriculture profiles was found in Okinawa's agriculture ecosystem. Monoculture was commonly practice and it is also hard situation for the Okinawa farmer to maintain the traditional crops cultivars. Highly intensive irrigated agriculture system was applied to produce main Okinawa agriculture commodity (Sugar cane) *Sacharum officinarum* (L) and Okinawa main horticulture product, Pineapple *Ananas comossus* (L). The objective of this paper is to analyze the comparison on agriculture downward growth on Okinawa Prefecture Japan and East Java Province of Indonesia using several indicators and offers some concept on agriculture revitalization for future development. Regression analysis and other descriptive statistics were employed to describe the change and agriculture performance. Intensification just for narrow crop species and high cropping intensity become the major threat for sustaining the agriculture practice in both Okinawa Prefecture and East Java Province. The classical perspective of agriculture as a production unit in East Java and Okinawa need to be improved to the more ecological sound agriculture based on local productive crops and as an agro-ecological system which both productive and ecologically sustainable.

Key Words: East Java, Okinawa, Agriculture, Sustainable

1. INTRODUCTION

Both East Java Province and Okinawa Prefecture now adopt intensive farming, which the system is characterized by the high inputs of capital, fertilizers, labour or labor-saving technologies such as pesticides and herbicides relative to land area. Modern day forms of intensive crop based agriculture involve the use of mechanical ploughing, chemical fertilizers, herbicides, fungicides, insecticides, plant growth regulators and/or pesticides. It is associated with the increasing use of agricultural mechanization, which has enabled a substantial increase in production