Ecosystem service and the economical effect in the Sake brewery on the coastal sand system in Chiba Prefecture, Japan.

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1. Introduction

The coastal sand system is a buffer zone between the sea and the land, and a fresh water layer is 10 m underground before and after. Water from the fresh water layer has been used as the preparation water of sake breweries on the coastal sand system, and plays a role as an ecosystem service. The number of sake breweries on the coastal sand system in Chiba Prefecture, Japan was 59 in 1925, and was about six times compared to 2016. Moreover, in the Taisho era, the infrastructure did not advance, and the transportation did not develop. Therefore, the regional persons drank sake which was made in neighboring breweries. I presumed that sake breweries made sake utilizing rich natural coastal environments and were prosperous. However, there are no cases studied about the economic efficiency of the sake breweries. In this study, I examined about the economical efficiency of sake breweries that conducted brewing utilizing rich coastal nature.

2. The calculation methods

I translated the sales figures of sake breweries in 1921 into sales figures in 2016.

1 yen = 16,186.6667 yen (this price was calculated based on the price of rice)

http://nenbetu.atukan.com/

Tax payment = taxable sales $\times 0.08$ (consumption tax) - taxable sales $\times 0.08$ (consumption tax) $\times 0.7$

(Deemed purchase rate: Manufacturing industry)

Taxable sales = Tax payment/0.024

3. Result and Consideration

As a result, calculated sales figures of sake breweries in 2016 into those of sake breweries that were in Tokyo Bay side in 1921, two breweries made over 500 million yen. In other cases, two breweries made over 300 million yen, and five breweries made over 100 million yen. On the other hand, looking at the top sales (nationwide version) rank (Tokyo commence and industry Co., Ltd) of nationwide sake breweries in 2010, the number of breweries where sales were 100-500 million yen was 246 and accounted for 47% of the whole. The number of breweries where the sales were 500-1000 million yen was 42 and accounted for 8% of the whole. Compared to sales of sake breweries that were run in sturdy sites in 1921, two breweries with sales of 500 million yen or more were included in the top sales of 81 nationwide sake breweries. In conclusion, although there are differences in the background of the times, such as the favorite alcohol of the people in those days being limited to Japanese sake, I presume that the sake brewery conducted brewing utilizing the bounty of rich coastal nature and had an economic effect.

Keywords: Ecosystem Service, Coastal Sand System, Sales Figures, Japanese Sake Brewery, Economic Effect