

## 特集論文

Creative Efforts and their Economic Effects  
on Nagasaki Prefecture's Agriculture

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## I . Introduction

Nagasaki Prefecture produces beef cattle, rice, potatoes, strawberries, mandarin oranges, loquats, vegetables, and flowers.

The purpose of this paper is to introduce the creative efforts and their characteristics in Nagasaki Prefecture's agriculture, to estimate their economic effects, and to clarify agriculture's position in the regional economy.

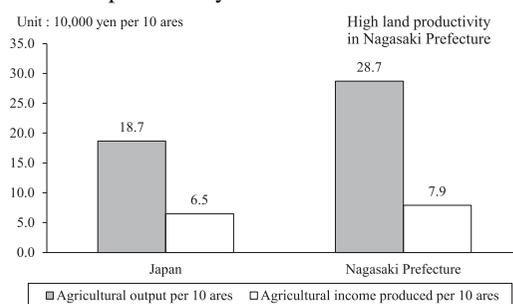
## II . Characteristics of agriculture in Nagasaki Prefecture

The data appear to support two characteristics of agriculture in Nagasaki Prefecture.

## 1. Agricultural production with high land productivity

The agricultural output of Nagasaki Prefecture in 2013 was 144.4 billion yen, ranking 22<sup>nd</sup> among 47 prefectures. Moreover, the cultivated land area in 2013 was 50,300 ha, ranking 31<sup>st</sup> among 47 prefectures. The agricultural output per 10 ares is 287,000 yen in Nagasaki Prefecture, which is high compared to the national average of 187,000 yen. The agricultural income in the same area is 79,000 yen, which is also high compared with the national average of 65,000 yen. Nagasaki Prefecture thus has agricultural production with high land productivity (Figure 1).

Figure 1. Agricultural production with land productivity in 2013



Source: Ministry of Agriculture, Forestry and Fisheries Data.

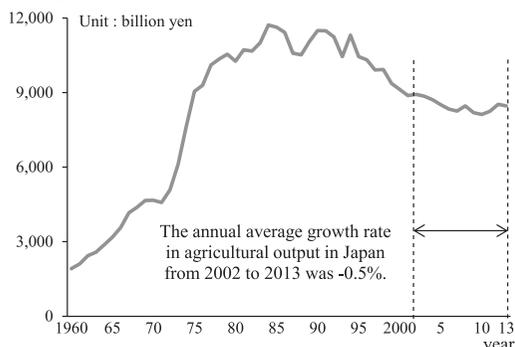
## 2. Agricultural output tends to increase

Agricultural output in Japan decreased from 8.9 trillion yen in 2002 to 8.5 trillion yen in 2013. The annual average growth rate for this period was -0.5% (Figure 2). On the other hand, agricultural output in Nagasaki Prefecture increased from 130.1 billion yen in 2002 to 144.4 billion yen in 2013. The annual average growth rate in this period was +1.0% (Figure 3). The main reason for the increase in agricultural output in Nagasaki Prefecture is the increase in the output of cattle and vegetables.

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Key Words: Agriculture, Nagasaki Prefecture, Creative Effort, Economic Effect, Regional Economy

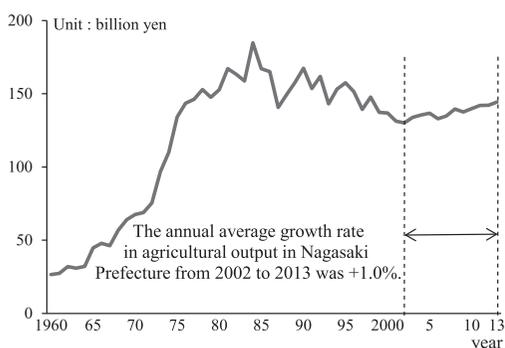
Figure 2. Trend of agricultural output in Japan



Source: Ministry of Agriculture, Forestry and Fisheries Data.

Note: Agricultural output is nominal values.

Figure 3. Trend of agricultural output in Nagasaki Prefecture



Source: Ministry of Agriculture, Forestry and Fisheries Data.

Note: Agricultural output is nominal values.

### Ⅲ . Creative efforts in Nagasaki Prefecture's agriculture

This section introduces the three creative efforts related to agriculture in Nagasaki Prefecture.

#### 1. Quality certification for brand processed agricultural products

Nagasaki Prefecture produces excellent agricultural products, which are used to produce very high quality processed products.

A certification system for branded processed agricultural products is under way in Nagasaki prefecture. Certificated goods will be sold with the brand name “Nagasaki-Shiki-

Batake (Nagasaki field for the four seasons).” The brand will have sales support and production promotion to enhance the reputation of certificated goods from Nagasaki prefecture.

#### 2. The efforts for “local production for local consumption”

Local production for local consumption is being promoted in Nagasaki prefecture, a principle where agricultural products are consumed in the same area where they are produced. The effort, which offers safe and secure agricultural products to consumers, increased the local consumption of its agricultural goods.

There are also some efforts to promote the use of a direct sales shop that sells agricultural products, for example, for school lunches, hospitals, welfare facilities, and hotels (especially Japanese-style hotels), as well as certification for restaurants to produce for local consumption, even in communicating with consumers.

#### 3. Efforts toward “sixth sector industrialization”

Increasing the added value of agriculture products requires not only production, but also processes and sales. Such an effort is called “sixth sector industrialization,” which contributes to regional revitalization.

### Ⅳ . The economic effect of agriculture in Nagasaki Prefecture

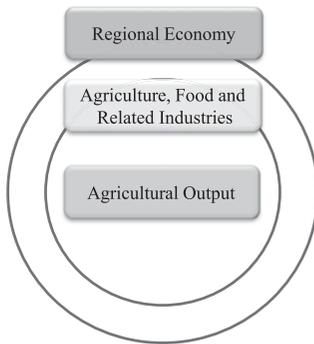
Agriculture plays an important role in Nagasaki prefecture’s economy and employment. Agriculture interacts with many other industries, and thus produces a positive economic effect for related industries and job creation.

Accordingly, Figure 4 illustrates the economic effect of agriculture in Nagasaki prefecture estimated via Input-Output analysis. Thus, the economic effect of agricultural output in 2013 amounts to 144.4 billion yen, with an estimated induced regional production amounting to 478.4 billion yen, an

induced gross value added of 243.6 billion yen, and employing 121,047 persons.

In terms of all industries in Nagasaki prefecture, the induced regional products account for 6.3%, the induced gross value added accounts for 5.7%, and employment accounts for 16.8%. Therefore, it is clear that agriculture plays an important role in Nagasaki prefecture's industry (Table 1).

Figure 4. Estimated economic effect of agriculture using Input-Output analysis



## V . Conclusion

This paper introduced the creative efforts and characteristics Nagasaki prefecture's agricultural industry,

estimated its economic effect, and clarified agriculture's position in the regional economy.

In Nagasaki, agriculture has high land productivity, with output tending to increase. Creative efforts, such as quality-certified branded products, local production for local consumption initiatives, and sixth sector industrialization. The results from the estimation of the economic effect show that agriculture is an important part of the regional economy.

Therefore, we must enhance agriculture as the foundation of the regional economy, recognizing that agriculture is a very important part of the regional economy.

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Table 1. The economic effect of agriculture in Nagasaki Prefecture

		Unit: a million yen, people		
		Regional Production	Gross value added	Employment
Agricultural output	(1)	144,400	72,542	80,569
Total economic effect	(2)	478,435	243,676	121,047
Statistic of Nagasaki Prefecture				
		Regional Production	Gross value added	Employment
All industries in Nagasaki Prefecture	(3)	7,562,306	4,251,765	718,788
Proportion of agriculture	(1)/(3)%	1.9%	1.7%	11.2%
Proportion of total economy	(2)/(3)%	6.3%	5.7%	16.8%

Source: Yoshimoto (2015).

Note: 1) The results of the Input-Output analysis.

2) Statistics drawn from the 2005 Input-Output table and 2013 Agricultural output in Nagasaki Prefecture.

3) The total economic effect corresponds to one year in Nagasaki prefecture.

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