

SUMMARY

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Fresh-cut vegetables are value-added vegetables because they have some treatments, such as trimming, peeling, washing, and cutting, to make them ready for customers. The intention of this research is to analyze value chain and sustainability of fresh-cut vegetables by applying study case method. The research was conducted in PT Sayuran Siap Saji, Megamendung, Bogor.

Situational analysis shows that PT SSS uses chlorine dioxide as chemical disinfectant for producing fresh-cut vegetables. Unfortunately, it has byproducts, such as chlorite and chlorate. The company uses the non-treatment wastewater for irrigating the farming area which are harmful for the environment and consumers in long period consumption. The situational analysis also shows that the company fully depends on the contract farming in Megamendung (Bogor), Cikajang (Garut), and Cisarua (Bandung).

PT SSS produced 22 sorts of fresh-cut vegetable in 2016. Therefore, it needs to conduct the product screening based on Pareto and Exponential Comparison Method. The integration of both methods result three competitive products, such as bell pepper, lettuce head, and broccoli. Green value stream mapping is conducted to those competitive products. They have Green Productivity Index which values are less than one. Accordingly, they mean the environmental impacts are higher than productivities.

PT SSS has enough sustainable status in multidimension. The economical dimension has higher sustainability index than the other dimensions, such as environmental, technological, and contract farming dimension. The most sensitive attributes in the sustainability system of PT SSS are mentioned as follows. The most sensitive attribute for environmental dimension is the use of chemical fertilizer. The most sensitive attribute for technological dimension is agroforestry. The most sensitive attribute for contract farming dimension is the existence of contract farmer group, whileas the most sensitive attribute for economical dimension is the profit of contract farmer.

By integrating green value stream mapping and Rapfreshcut, the results are alternative strategies which scopes are broad, such as energy efficiency, environmentally friendly technology, contract farming, and production efficiency. According to ANP BOCR the priority strategy is contract farming (the movement the contract farming area to nearer area of fresh-cut industry and the accompaniment of contract farmers sustainably). The scenarios for improving the sustainability are derived from alternative strategies. Based on the highest Green Productivity Index, the best scenario is the movement contract farming area to Cipanas and the accompaniment contract farmers sustainably.

Keywords: green productivity, sustainability, value chain