Food waste management in restaurants in Nakhon Si Thammarat Municipality

Food waste refers to organic waste generated from food that remains unconsumed and discarded, including inedible parts of food, expired food, and excess food. According to the Pollution Control Department, the average Thai people generate approximately 1.13 kilograms of waste per person per day, with organic waste at 64 percent. Properly managed disposal accounts for 43 percent, while 31 percent is recycled, and the remaining 26 percent is typically dumped in landfills and open sites, contributing to greenhouse gas emissions and impacting climate change. Effective waste management at the source is important, especially organic and food waste, through reduction and separation at source. The survey study in 2024 was conducted among restaurant businesses in the municipality area of Nakhon Si Thammarat. The results showed that restaurants normally dispose of organic waste, especially food waste, alongside other general waste. The primary components of this organic waste are produced during food preparation and cooking. For convenience, restaurant operators disposed of food waste in a single collection bag, mixed with general waste. Once the restaurant operator placed the waste bag at a designated point, municipal services collected it at designated times. The types of food waste identified include rice, noodles, meat, bones, fishbones, animal shells, vegetable scraps, and eggshells, with vegetable scraps being the most common and mixed with general waste. General waste included items such as plastic scarps, straws, wooden chopsticks, and tissue paper. Additionally, restaurant operators collected food remnants from customer plates separately and sometimes grabbed the plastic scarps and tissue paper. Then restaurant operators sent food waste to farmers, who used the plate waste to feed animals, such as ducks and pigs. Therefore, the focus of effective waste management in restaurant businesses should be on the separation of waste, particularly organic and food waste. It is necessary to segregate organic and food waste into specific containers, keeping them separate from other waste, to ensure proper food waste is useful.

The Nakhon Si Thammarat municipality has policies to develop the area to maintain a clean and beautiful environment, promoting community involvement in environmental care. This includes systematic waste management by improving waste collection efficiency, promoting

waste reduction and separation, and supporting the establishment of standard waste disposal facilities. The organic waste separation project in restaurant businesses within the municipality aimed to address the specific issue of organic waste in the area. The Public Health and Environmental Department of Nakhon Si Thammarat Municipality has organized training for the project. The project's goal was to raise awareness among local restaurant operators about the importance of organic waste issues and encourage more practice in reducing and segregating waste at the source. This training promoted proper waste separation behaviors and organic waste management processes through speaker Dr. Pattida Thongkaow, a lecturer at Walailak University. The content covered the types of waste generated in restaurants, methods to reduce waste production, waste separation techniques, and self-disposal methods such as composting. Participants asked questions, engaged in discussions, exchanged information, and shared opinions to propose suitable waste management strategies for restaurants. Additionally, the Nakhon Si Thammarat Municipality continuously promotes and supports restaurant businesses interested in participating in the initiative to segregate organic waste. The training enables restaurant operators to understand the correct methods of dealing with organic and food waste, as well as how to manage waste generated within their businesses. The policy recommendations for food waste management use the food waste recovery hierarchy principle, which first prioritizes reduction at the source. This entails preventing and reducing food waste as much as possible. The next step is maximizing the use of any food waste generated for other valuable purposes and aiming to minimize the disposal of the food waste.