

ISLAND WASTE MANAGING PROBLEMS AND SOLUTIONS

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INTRODUCTION:

Key waste management aspirations seek to reduce waste generation at the point of its occurrence. The tendency is to realize the model of reuse of already used 'waste' primarily in material sense and if possible considering the type of waste and energy sense. In modern times the habits of people, and primarily of consumers are radically different. The reality is that food products, devices, materials and other things are written off and discarded from use even when they are realistically still usable. In Croatia, a strategic goal of waste management has been determined through the Integrated Waste Management System (IVO). The IVO model (Avoidance-Evaluation-Disposal) is conceived as a system of waste collection and then transportation to a pre-planned location. Considering the management system, it was noticed that the priority is selection for the purpose of recycling, while the remaining waste that is no longer usable is processed using mechanical and biological treatment. The subject of this paper is to analyze the current state and impact on the environment. The purpose of this paper is to try to define waste management in order to achieve the goals of rationalization and optimization of waste transport costs. The aim of the paper to harmonize with the abstract is to explore the possibilities of improvement through new technologies such as heat treatment within the area of waste collection and reflections on the reduction of transport costs. The methodological framework and procedure were tested on the waste management system on the example of the island of Lošinj.

METHODS:

The analysis of waste management on the island of Lošinj was entered with data and assumptions that each inhabitant of the island of Lošinj produces 1 kg of waste per day, which is the world average. Considering that the island of Lošinj has approximately 9,587 inhabitants, the total amount of waste is approx. 9.6 t of waste per day. Annually, this amount is 3,504 tons. Furthermore, each tourist overnight stay results in an additional 1 kg per night. According to the Mali Lošinj Tourist Board in 2020, the total number of overnight stays on Mali Lošinj is 1,310,991. [2] Accordingly, the daily additional amount of waste is 1,310,991 kg, or approx. 1,311 tons. Therefore, the analysis found that the annual amount of 'produced' waste is 4,815 t. Official data for 2019 according to the 'Report on the implementation of the waste management plan of the Republic of Croatia in the Primorje-Gorski Kotar County for 2019' for Mali Lošinj amounts to 4,453.57 tons. [1]

RESULTS & DISCUSSION: Waste management on the islands has not received much attention in the past. The problem of waste management is practically as old as human existence itself. Significant positive developments have been observed in the recent period. The results of waste management were manifested primarily through reduced contamination of unsuitable terrain and limited space on the islands. The implementation of laws and bylaws would improve and regulate the system of waste management and energy recovery. Waste management or manipulation is not only an economic activity that employs today's and future generations but it should also be perceived as an aspiration for the highest possible quality and safety of life. Therefore, systematic and prudent waste management is crucial.

CONCLUSION: Waste management on the islands and an integrated waste management system must be in accordance with the 'Waste Management Strategy in the Republic of Croatia', which was adopted back in 2005. In Croatia, a mechanical biological treatment of waste called MBO is mainly used. Croatia is one of the countries that has a rather weak and problematic policy, so the EU is trying to increase efficiency in waste management with its legislation and tax policy. The paper presents a detailed situation in real time, and also tries to define something that does not exist, i. e. solutions are proposed that would improve waste management. For this reason, in waste management, the emphasis should be primarily on waste sorting, and then on the faster and more efficient separation of biowaste from other waste. Biowaste should be processed into compost in the island compost whose location is acceptable to the local population and is not an obstacle to sustainable tourism development of the island. The research confirmed the need to separate biodegradable waste, which is extremely important for the local community and in order to prevent possible damage to the ecosystem, which is closely related to the sustainable development of the tertiary sector, especially tourism.



Figure . Recycling plant Kalvarijska on island Lošinj

REFERENCES

- [1] Report on the implementation of the waste management plan of the Republic of Croatia in the Primorje-Gorski Kotar County for 2019., Rijeka 2020.
 [2] (website) View arrivals and overnights stays for the area of the Town of Mali Lošinj by accommodation capacities and countries of arrival. (2021) Available from: <https://www.visitlostinj.hr/hr/statistika.aspx> [Accessed 2nd January 2021]