Sustainable development in Technical School Rijeka

Introduction

Our school is located in Rijeka, where a humid climate and a high amount of precipitation prevail. The average annual precipitation is around 1500 mm[1], which is almost twice as much as in other Croatian cities, making it one of the rainiest European cities, with about 140 rainy days [2]per year. This is why Technical School Rijeka could utilize an alternative water source and implement a rainwater harvesting system.

Rainwater as a renewable energy source

The implementation of a rainwater harvesting system could significantly contribute to the school's self-sustainability. Collected rainwater can be used for various purposes, one of the most important being the cleaning of sanitary facilities, maintaining gardens, and cleaning the school environment, which would make our school partially self-sustainable. This approach would reduce the consumption of rainwater, maintenance costs, and energy consumption within the water supply system. The goal is to install a rainwater collection system within the school grounds which would be connected to the sanitary installations inside the school, allowing the collected water to be used for flushing toilets, watering, and maintaining the school garden. By achieving certain sustainable development goals set by the UN, the school will reduce its dependence on conventional water sources by using rainwater, thus, contributing to the conservation of rainwater resources, becoming self-sustainable in our city and the local community, and responsibly managing newly available resources.

When our school implements a rainwater harvesting system, it will become an example of a self-sustainable institution that can serve as an educational model for other institutions.

Figure 1 - Image generated using AI tools - MagicSchool

Conclusion

Given the high levels of precipitation that our city receives annually, utilizing rainwater would be a step towards sustainable water resource management. The implementation of a rainwater harvesting system in our school would contribute to achieving sustainable development goals, laying a foundation for future initiatives in the city. By using natural resources such as rainwater, this school can become a true example of an environmentally conscious institution that actively fights climate change and promotes sustainable practices.

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[1] Taken from DHMZ - State Hydrometeorological Institute

[2]Taken from Novi List - news paper, 27.01.2025.