

THE IMPACT OF EUROPEAN STRUCTURAL AND INVESTMENT FUNDS ON INTEGRATED WASTE MANAGEMENT SYSTEMS (IWMS) FROM THE PERSPECTIVE OF STRATEGIC OBJECTIVES

CONTENT

INTRODUCTION

CHAPTER I. PRESENTATION OF THE CONCEPTUAL FRAMEWORK

- 1.1. Theoretical approaches regarding waste
- 1.2. Waste management and the concept of Integrated Waste Management System
- 1.3. Bibliometric analysis on waste management and integrated waste management
 - 1.3.1. Bibliometric analysis on „waste management”
 - 1.3.2. Bibliometric analysis on „integrated waste management”
- 1.4. The strategic and institutional framework of waste management

CHAPTER II. ANALYSIS OF WASTE QUANTITIES GENERATED AND TREATED AT THE LEVEL OF THE EUROPEAN UNION

- 2.1. Analysis of the quantities of waste generated at the level of the European Union countries
- 2.2. Analysis of the quantities of waste treated at the level of the European Union countries
 - 2.2.1. Analysis of the waste treatment rate at the level of the European Union countries
 - 2.2.2. Descriptive statistical analysis of treated waste at the level of European Union countries
- 2.3. Analysis of the quantities of waste treated in Romania

CHAPTER III. ANALYSIS OF THE IMPLEMENTATION STAGE OF INTEGRATED WASTE MANAGEMENT SYSTEMS IN ROMANIA

- 3.1. Analysis of the stage of IWMS implementation in 2019
- 3.2. Analysis of the stage of IWMS implementation in 2021
- 3.3. Analysis of the stage of IWMS implementation in 2023
- 3.4. Analysis of the value structure of waste management projects
- 3.5. Comparative analysis regarding the dynamics of IWMS implementation

CHAPTER IV. CASE STUDY – THE INTEGRATED WASTE MANAGEMENT SYSTEM ARGEŞ

- 4.1. Brief description of the Integrated Waste Management System Argeş
- 4.2. Analysis of waste generated, collected and treated at the level of Argeş County
- 4.3. Analysis of waste disposed at the level of territorial administrative units of Argeş County

CHAPTER V. INVESTMENT IMPACT ON INTEGRATED WASTE MANAGEMENT SYSTEMS IN ROMANIA

5.1. Analysis of IWMS implementation efficiency indicators

5.2. Analysis of the influence of the value of projects financed from European structural and investment funds on the quantities of treated waste

5.3. Analysis of the influence of the activity of economic units on the value of IWMS projects

CONCLUSIONS

References

Annexes

List of abbreviations and acronyms

List of tables

List of figures/graphics

Keywords: waste management, European funds, the quantity of generated waste, generated waste, treated waste, Romania

Summary

This PhD thesis aims to investigate the complex phenomenon of the influence of European structural and investment funds on integrated waste management systems and to analyze their efficiency. The research was carried out in five chapters, the first of which aimed to highlight the conceptual and legislative framework on waste management and integrated waste management. Following a bibliometric analysis of the research carried out, it was found that there is quite little research on waste management, but especially integrated waste management, which is the exclusive aim of our country. The second chapter analyzes the quantities of waste generated, but especially treated, at the level of the Member States of the European Union, up to the study of the volume of waste treated at county level, concerning Romania. The research, based on Eurostat data, revealed that the treatment rate is very high at the average EU level, as well as in the Member States, but it should be noted that there is a multitude of treatment methods, some more sustainable than others. Chapter three analyzes the implementation status of the Integrated Waste Management Systems (IWMS) in each county in Romania. This analysis was a cumulative one, and at the end of the analysis, in the last year, it was found that the stations of each phase of the SMID were in operation in a proportion of about 75%, except for the mechanical-biological waste treatment stations, which were in operation in a proportion of 50%. Chapter four encompasses the case study,

i.e. the analysis of the implementation of the SMID at the level of Arges County, taking into account its performance, but also the degree of concentration, as there are only four municipalities in the county that deal with waste management throughout the county, and as for the economic operators serving this system, there are two of them for all the 102 county's UATs. A study of the performance of waste management in the county showed that the situation has improved significantly since the treatment plant was put into operation, with a treatment rate three times higher. In the last chapter, hierarchies of counties according to waste management efficiency and performance were developed, and then the influence of the value of projects on the amount of waste treated was determined. The results showed that the linear regression model suggested a positive but moderate relationship between the value of projects and the amount of waste treated, indicating that although investments in projects have an impact on the amount of waste treated, this impact is relatively limited. This can be justified by the fact that treatment plants are underdeveloped at county level.