

SUCCESS FACTORS IN WASTE SEGREGATION AND RECYCLING : CHONBURI PROVINCE CASE STUDY

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Introduction

Statement and Significant of the Problem

The waste problem in Thailand is still a problem that all sectors must urgently solve. The government has set waste as a national agenda. Especially in the period of the country's growth. Accelerating economic development takes place in all forms. More industrial scale production bring industrial waste from the report of the Department of Industrial Works There are approximately 70,000 licensed industrial factories in Thailand, each year producing up to 37 million tons of industrial waste.

One way of waste management is Processing of waste or used items The process of reusing used items has 4 steps: 1. Collection 2. Separating each type of material from each other 3. Production or improvement 4. Utilization in the production or improvement process Different materials will have different processing methods. Different production, such as bottles, glass of different colors or paper of different texture and color. must be separated from each other. Help reduce the burden of disposing of waste from industrial process saves at least half of the cost of buying new chemicals because the product can be used Renewable recycling helps the state save money. Because the chemicals Large, imported from foreign countries helps organize waste collection so that it can create a new culture. to occur in Thai society, reducing the problem of providing landfill areas and reducing the amount of pollution caused by waste combustion Help factories that want to create a system Manage the ISO 14000 environment more easily, helping to raise awareness of the use of resources. of the world with savings and value Aluminum is widely used in various downstream industries. It is in a form that can be seen directly, such as aluminum in construction in the form of a structure. window sill Aluminum packaging in the form of food cans, including food containers Aluminum has been playing a role in this industry for a long time. with the beginning of the industry because it is an important raw material Many types of automotive parts require aluminum due to its many outstanding properties, especially its lighter weight than steel. (Ministry of Industry, Office of Industrial Economics. 2012) for the trend of aluminum usage in Thailand. In addition to the growing use of aluminum in the construction industry, There is also an increasing use in the automotive group. and electrical appliances as well Since Thailand is both an automobile production base and one of the world's major electrical appliance production bases, it can be considered that the aluminum industry is important in driving the country's economy. effectively as well The structure of the aluminum industry in Thailand started from the aluminum scrap industry to produce unwrought aluminum and then passed on to the midstream industry. The structure of the Thai aluminum industry is divided into 6 groups: 1) Aluminum scrap industry 2) Aluminum foundry industry 3) Aluminum section industry 4) Aluminum sheet and foil industry 5) Aluminum packaging industry 6) Aluminum cable industry (EIC, Siam Commercial Bank, 2018). generating a large amount of aluminum waste Leading to the cost of disposing of aluminum waste Currently, there are entrepreneurs who process aluminum waste to be reused to reduce waste problems. However, the guidelines for this matter should be clearly studied. Therefore, the study should be used as an important information for planning for an in-depth study of Thailand's aluminum scrap smelting industry to strengthen further,

leading to Reduce waste to zero (Zero Waste) Create a circular economy (Circular Economy) is to recycle efficiently. It is a sustainable solution to the waste problem. Therefore, the researcher is interested in studying what success factors in waste separation and recycling are and how to do it.

Research Question

1. Guidelines for solving pollution from waste that affects the environment that is in line with the country's development guidelines in the case of aluminum industrial waste how is it.
2. There are guidelines for integrating collaboration between all sectors involved both the public and private sectors. and public sector How to properly utilize aluminum industrial waste.
3. What new knowledge has been gained from the drive to solve pollution from waste that affects the environment and an integrated approach? that is in line with the country's development guidelines In the case of aluminum industrial waste

Research Objectives

1. To study ways to drive pollution from waste that affects the environment. that is in line with the country's development guidelines in the case of aluminum industrial waste.
2. To study ways to integrate and work together with all sectors involved, both the public and private sectors. and public sector Making use of aluminum industrial waste in a scientific way.
3. To generate new knowledge gained from the drive to solve pollution from waste that affects the environment and an integrated approach that is in line with the country's development guidelines In the case of aluminum industrial waste

Scope of the Study

This research study is a qualitative study.

1. It will be an in-depth interview with policy makers and senior executives of aluminum converting enterprises, namely the Minister of Natural Resources and Environment or his delegates. Director General of the Pollution Control Department Director General Department of Environmental Quality Promotion Director General Department of Industrial Works and executives of aluminum processing plants and academics in the environment, including 10 people
2. Group discussion between Officials of the Ministry of Natural Resources and Environment Thai Industrial Standards Institute and high-ranking officials of processing plants including production managers Quality Manager and Sales Manager, including 30 people, which will cover in terms of comments about problems and Obstacle factors affecting the operations of aluminum scrap smelters in Thailand include: with comments on problems and obstacles in terms of production costs , ways to reduce waste occurring , improving Workflow , product quality management , marketing and customer service
3. Collected document. When obtaining information from the interview group that the researcher will bring data together with studies from documents and theoretical concepts. for further conclusions and suggestions

Significant of the Study

1. The results of the study will inform the way to drive pollution from waste that affects the environment. that is in line with the country's development guidelines in the case of aluminum industrial waste.

2. The results of the study reveal ways of integrating collaboration among all involved sectors, both the public and private sectors. and public sector to be able to utilize the aluminum type of industrial waste in an academically correct way.

3. To apply the knowledge gained from driving the pollution from waste that affects the environment. and an integrated approach that is in line with the country's development guidelines In the case of aluminum industrial waste to expand the results both in terms of technological management and Building knowledge on waste management and reusing waste which will lead to Reducing waste to zero (Zero Waste) , creating a circular economy system (Circular Economy) , which is to recycle efficiently.

Definition of Term

Industrial waste means unused things or wastes from factory operations. from the raw material receiving process quality inspection, production, pollution treatment maintenance of machinery or equipment until the demolition or construction of buildings within the factory area including sludge or leftovers from them Hazardous waste from office buildings Worker accommodation within the factory area or waste from the production process Including deteriorated raw materials Deteriorated products, leftovers, contaminated containers

Garbage segregation refers to one method in the process of reducing the amount of solid waste. which is the cause of current environmental pollution problems Solid waste caused by neglecting waste sorting in our daily lives. It is a chain that destroys the quality of the environment. physical health and overall life

Reuse refers to the processing of used items and then reusing them. Or a process known as "recycling" is to bring used waste back to what may be the same. or not the same

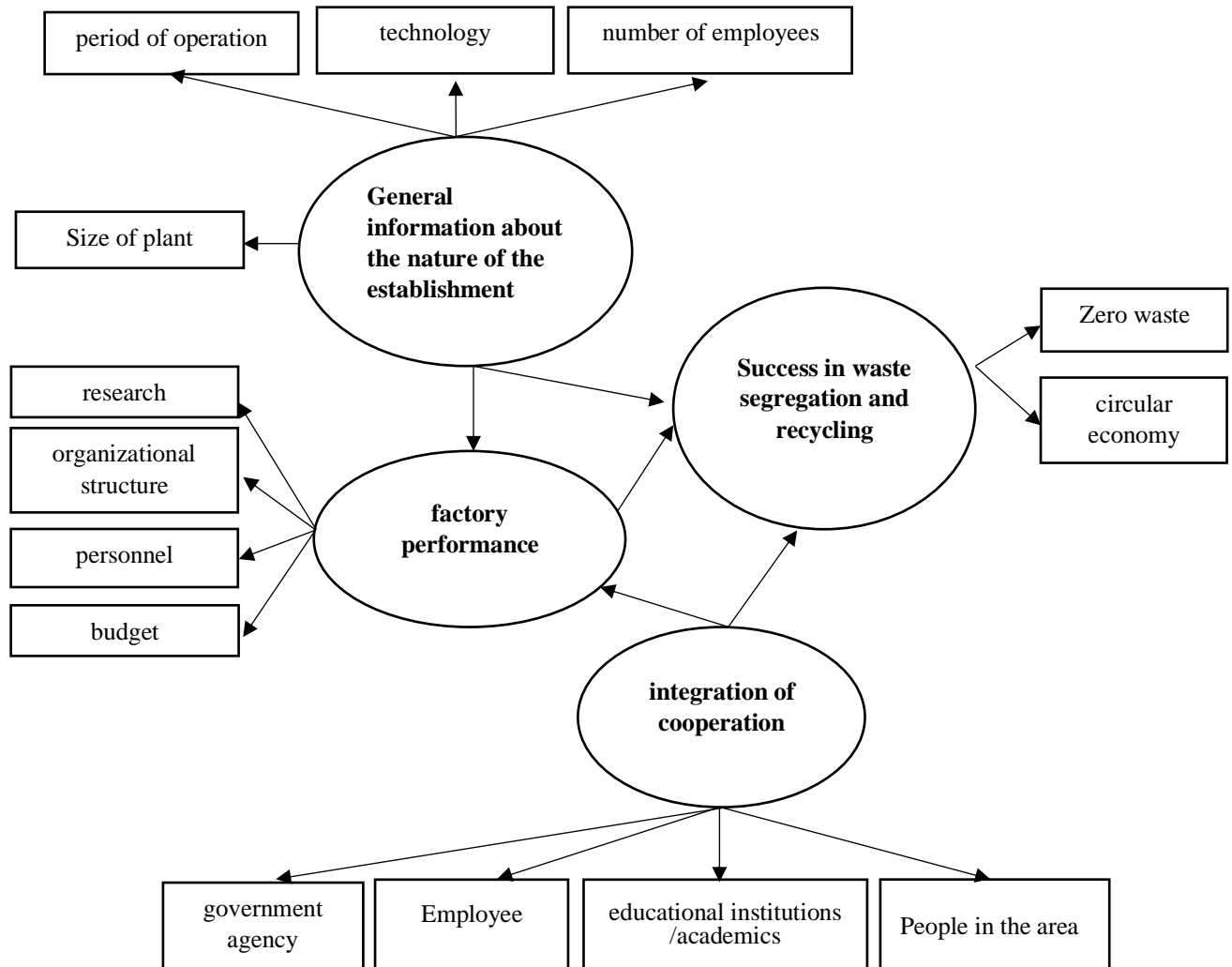
Aluminum waste means waste classified as hazardous waste. Caused by the process of casting / melting aluminum, both in the aluminum ingot production industry. and aluminum processing industry Due to the many suitable properties of aluminum including light weight Easy to stretch, tough, low melting point, and can be remelted.

Theoretical Concept

1. Concept of environmental management
2. Concept of development management
3. Human Resource Development Concept and Awareness Creation
4. Participation Concept
5. Solid Waste Concept
6. The concept of solid waste management according to the 5RS principle
7. Duties of local authorities in solid waste management
8. The concept of sustainable development
9. Theoretical concepts on public policy
10. Concepts related to solid waste management.
11. The 13th National Economic and Social Development Plan (2023-2027)
12. Related Research
13. Conceptual Framework

Conceptual Framework

From the study of the theoretical concepts related to research on success factors in waste separation and recycling : Chonburi province case study The conceptual framework for research can be defined as follows.



Adapted from VoradeJ Chandarasorn, a theoretical model for policy implementation

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