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Research Article

Environmental Risk Assessment and Waste Management Strategies in Rural Areas (Case Study: Ramjerd Village 1, Marvdasht city)

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ABSTRACT

Introduction: protecting the environment is one of the important pillars of human rights, so that the maintenance and protection of the environment is one of the main tasks of the present and the future.A major part of the population of rural and natural areas of the country is allocated. One of the most important environmental health problems villages lack basic collection and disposal of waste produced.Waste management rural important action to prevent environmental hazards and one of the most important components of sustainable development is rural.

Materials and Methods: In this study, the data collection method is the descriptive survey which aims to provide appropriate waste management strategy in Ramjerdvillage 1, Marvdashtcity done.In this study, using a sample of the population of the area under study, 400 subjects were selected.After analyzing and identifying environmental factors, matrices were made IFE and EFE.

Conclusion: the final score 2.458 internal factors and external factors final score was 2.797. According to the final score, the matrix is composed of the situation and of the strategies of the IE model, SWOT, conservative strategies as a strategy QSPM were assigned to the matrix.Finally, with regard to the appeal, the strategy of "education for rural people and rural managers considering taking their training to avoid unseemly sights and informing them about the economic value of waste "as the most important strategy ago and was introduced with the highest rating.

Key words: strategy, waste management, environment, Ramjerd 1

1. INTRODUCTION

Rapid population growth, industrial development, technology development and promote the culture of consumerism and thus produce more waste, among the issues that societies in recent decades have created great economic and social crisis and cause environmental pollution and thereby endanger people's health (1). Waste refers to waste, which has been produced by daily activities, and human diversity and the manufacturer do not use it (2).These materials: agricultural waste, commercial, construction, industrial, household and food covered (3).One of the most important components of sustainable development, waste management and the management involves creating and programs are necessary (4). To create a waste management system in rural areas should be appropriate structural capacities (5). Waste management rural important action to prevent risks and damage to the environment (6). Pollution caused by waste villages directly to the cleanest parts of the environment, including the headwaters of rivers

and agricultural land and natural resources are (7). In order to increase the rural population due to prevailing consumer culture, increase the amount of waste generated daily, the inevitable waste and lack of organization, several problems in recent years in social and economic fields has made (8).Waste management is a multifaceted process is subject to factors such as production waste, collect, transportation, disposal and recycling depends, so limit the broad categories and range management, strategic management, there is no choice but for such an organization.

One of the most appropriate techniques for planning is SWOT matrix (9). SWOT one set of tools, strategies and management practices is in many aspects and all the strengths, weaknesses, threats and opportunities to identified and defined. Therefore, it can be a basis for management decisions and experts and setting goals (10).SWOT analysis and quantitative strategic planning matrix QSPM, it able to review the approaches taken and it has been classified and also as a means to convert threats into opportunities and change weaknesses to strengths with community participation in waste management plans are operational.This method can be used to objectively identify different strategies that are among the best strategies (11).

ZangiAbadi and Ahmadi, dedicated landfill, strategy for training and increasing awareness about the production and harvesting, attract foreign investment in the field of recycling, renewable environmental legislation and landfill and separation standards stated strategies (12). Scortaret al developed waste management plans, guidelines for the implementation of appropriate waste management systems expressed (13).

Elena ENACHE study entitled the issue of waste management in Romania comparative analysis, SWOT, strengths include the following stated, waste management delegating to private office in 2004 and accordingly, the National Waste Management Plan was developed city, an annual report every five years or whenever necessary monitoring programs are reviewed (14). The study to develop appropriate strategies for waste management districts Ramjerd a SWOT model is used and then set strategies charm with a little strategic planning matrix (QSPM) were identified and prioritized.

MATERIALS AND METHODS:

Ramjerd village 1, it is a village of Marvdasht city located in Fars Province. The place itself, with 10709 populations district 13 villages with 2932 households. The study also descriptive of the type of research - is also a survey. First, by internal and external factors Ramjerd a rural district, strengths and opportunities, weaknesses and threats were identified rural waste management. Then in a Likert scale of 5 options, the importance of each one of these factors and elements of villagers and local officials took the survey.Then those factors that the participants of the study were excluded from the study failed to take appropriate rating and for the rest of factors internal and external factors evaluation matrix developed and were analyzed using SWOT techniques. Waste management developed four strategies presented in the study area and then the current position of the matrix formed internal and external factors IE. The study population was identified from the perspective of the strategy and in the end, a little strategic planning matrix calculates a score draw was the charm; choose the appropriate strategy and subsequent strategies presented in order of priority.The population of this study consisted of rural residents ofRamjerd.Using Cochran ($p = 0.5$ and $q = 0.5$ $z = 1.96$ and $d = 0.05$ and $N = 10709$) sample size of 326 patients was determined. Multiply this number by a factor of about 2.1 and with the loss plan, sample size was determined 400 and based on the percentage of each country's share of the population of the district, was completed questionnaires randomly.Due to the rural environment and the need to collect accurate information from those questions should be enough information. Hence, ages 25 to 50 years were selected. Based on the percentage of the

population of men and women of each village, the number of men and women in each village were selected.

FINDINGS

During field surveys, 8 and 13 strengths and 15 weaknesses of 4 operating as an opportunity and as a threat to rural waste management in the district Ramjerd 1 have been identified. Those factors that, first sample consisted of less than 3 to 5 options Likert scale gained have left the list. As a result of operating 23 domestic, 14 operating and killed 17 foreign agent, 11 accepted by the population of the study was to assess the strategic factors inside and outside the IEF and EFE matrix was used. Given that the final grade internal factors evaluation matrix (IFE) is less than 2.5 (2.458), it can be said that waste management in the district Ramjerd 1 during weak performance in terms of internal factors.The final score of external factors evaluation matrix (EFE) More than 2.5 is (2.797), it can be said that the Waste Management in the district Ramjerd1 is acceptable performance in terms of external factors.Finally, after determining the attractiveness of porters by means of QSPM, strategies were prioritized.

Table 1-1: prioritization strategies

Total score charm strategies	Charisma scores external factors	Score charm internal factors	Conservative strategies (WO)	
494/3	027/2	467/1	VA rural education and training according to their ability to prevent unseemly sights and informing them about the economic value of waste	1
427/3	286/1	141/2	The use of technologies and trash to avoid the mess by animal waste	2
312/3	111/2	201/1	Higher materials contained in waste to produce fertilizer and as a result jobs	3
415/3	553/1	862/1	Allocate the necessary credibility of the importance of the environment and environmental laws	4
842/1	042/1	80/0	Increase employment opportunities arising from private sector investment in waste management	5

The results of the Qualitative Strategic Matrix QSPM

Shows the 5 conservative strategy is selected, the greatest charm of "education for rural and village administrations according to the teaching of it to avoid unseemly sights and informing them about the economic value of waste "with the lowest score of 3.494 and charm are related to strategy."Increasing employment opportunities of private sector investment in waste management" with score was 1.842.

CONCLUSION:

The order of priority based on the total weight of reform is moving towards sustainable development. In addition, media advertising and

public awareness about pollution caused by waste from the attractiveness of higher performing better. Using this method, the following strategies were ranked according score the attractiveness of education according to the teaching of the villagers and village administrations to prevent unsightly environments. Moreover, informing them about the economic value of waste, use of technologies and waste and trash to avoid the mess by animals, allocate the necessary credibility of the importance of the environment and environmental laws. It contained in the waste materials for the production of agricultural fertilizers. Thus creates jobs, increase employment opportunities arising from private sector investment in waste management.

Suggestion:

Raising awareness and change the attitude of villagers toward the right such as reducing the production of waste management, separation of recyclable materials at home, collection and recycling through production and distribution of posters, encouragement and participation of the private sector and environmental organizations for investment.

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