

Factors Associated with the Compliance to Ecological Solid Waste Management Act 2000 (RA 9003) of Inland Resort Establishments in the Province of Iloilo: Inputs to Policy Enhancement

Tadema B. Formarejo¹, Carmen N. Hernandez² and Lorna T. Grande²

ABSTRACT

Solid waste management (SWM) is a crucial problem that needs to be addressed. In support, this correlational study determined factors associated with compliance to RA 9003 among 118 respondents from 23 inland resorts in the province of Iloilo taken by total enumeration. Cross tabulation, means, frequency counts, and percentages determined the demographics, level of awareness, extent of public participation, level of available resources, extent of enforcement, and extent of compliance to RA 9003 of inland resorts. Significant association was determined using Gamma coefficient while partial correlation determined the correlations between awareness, public participation, available resources, and enforcement and compliance. Majority of inland resorts were micro enterprises with 1 to 9 staff, less than 10 rooms, and two recreational facilities that had been open for less than 5 years and were not DOT accredited. Inland resorts were highly aware of RA 9003, with a high extent of participation, with a high level of available resources, and a high extent of enforcement and compliance to RA 9003. It is concluded that Public participation is strongly correlated with awareness, resources and enforcement while awareness is moderately correlated with resources and enforcement. However, enforcement is moderately correlated with resources and awareness but strongly correlated with participation and resources. Moreover, compliance is significantly correlated with enforcement and available resources but not with awareness and participation, and awareness, participation, resources, and enforcement are not predictors of compliance to RA 9003.

Keywords: ecological solid waste management, micro enterprises, natural resources, waste segregation

INTRODUCTION

Background of the Study

Solid waste is one of the most pressing issues resulting from human activity. Fernandez (2018) emphasized that improper solid waste disposal ultimately destroys the environment and natural resources. SWM is a crucial issue that needs to be addressed including pollution, natural resource degradation, and ozone layer destruction that posed serious threat to public health (Bagolong, 2016). If we want to save the Earth, we need to act immediately before it's too late. RA 9003 was enacted to address environmental concerns to ensure proper waste segregation, collection, transport, treatment, and disposal through SWM. Waste control involves storing, collecting, transporting, processing, and disposing of solid waste according to relevant laws, public health, economics, and other factors as mandated to LGUs for the implementation and enforcement of RA 9003 within their respective jurisdictions (Geguinto, 2017).

However, SWM malpractices still exist like open dumpsites, despite

existing policies due to lack of awareness, public participation, and policy enforcement Galarpe & Heyasa (2017). Garbage is still burned openly in backyards, risking human health and damaging the ozone layer particularly.

Inland resorts consume resources in their regular operations that negatively affect the environment when wastes generated are not managed properly. Recently, inland resorts are challenged with compliance issues on environmental laws. Hence, identifying factors that influence compliance and allows better understanding of what drives compliance to RA 9003, leading to improved environmental policies that support sustainability and human well-being (Dao, 2008).

On this assumption, this study was conducted on factors associated with compliance to SWM law to provide inputs for the enhancement of policy implementation in the Iloilo province's tourism industries.

REVIEW OF RELATED LITERATURE AND STUDIES

The Ecological Solid Waste Management Act of 2000 (RA 9003)

Management Act of 2000 (RA 9003) addresses the solid waste problem of the country which was signed into law on January 25, 2001. The Act set up the necessary institutional mechanisms and incentives for a comprehensive SWM program, appropriates funding, declares certain actions prohibited, and imposes penalties.

Congresswoman Loren Legarda emphasized that RA 9003 is a good law, but its effective implementation rests on everyone's efforts, primarily the LGUs and barangays with the authority to implement and enforce the law should take the lead in ensuring strict compliance to the mandatory requirements of this law.

Related Studies

Sustainability of any SWM plans' implementation depends mainly on the commitment of the local institutions and households to change their behavior especially on SWM (Rola, 2019). Hasan (2011) supports Dasa's statement that the key to a successful SWM program includes public awareness and participation supplementary to appropriate

legislation, strong technical support and adequate funding. Amasuomo (2015) confirms that participation relies on the level of awareness and understanding about the law. Similarly, *Punongbayan* (2014) reported that participation is the key in a successful waste management program. It is a critical component in the success of the effective implementation of SWM practices. Likewise, available resources in terms of personnel and funding and strict enforcement are essential to RA 9003s implementation (Dataman, 2012). Asase (2009), confirms that enacting strong law both from national and local levels to guide waste management decisions and strategies is very important.

Significance of the Study

The results of this study are beneficial to the LGUs, DOT, DENR, and Iloilo Provincial Government by providing data derived from the findings about factors associated with compliance to RA 9003 for the enhancement of policy implementation. Resorts, guests, community, employees, youth and future researchers are provided with relevant data from the findings that could help in raising awareness about RA 9003.

Objectives of the Study

This study determined the factors associated with the Compliance to Ecological Solid Waste Management Act of 2000 (RA 9003) of Inland Resort Establishments in the Province of Iloilo as an Input to Policy Enhancement.

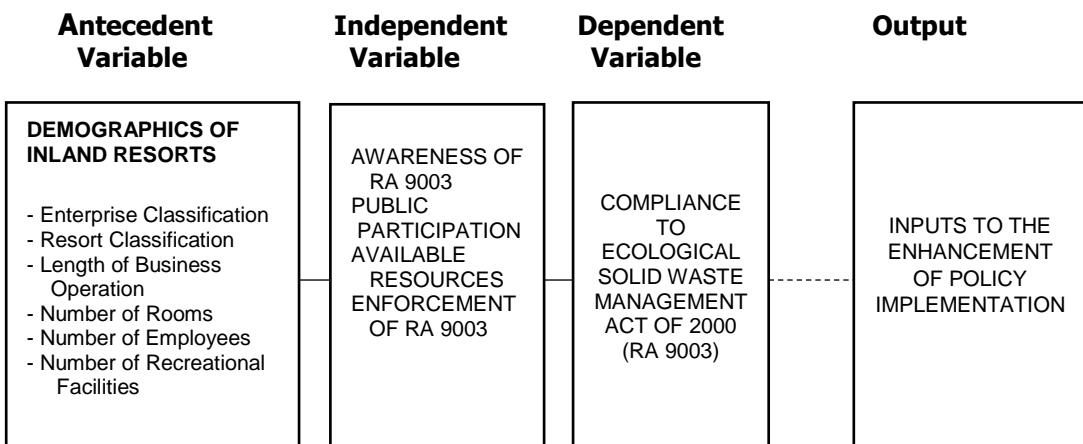
Specifically, it determined factors associated with compliance to RA 9003 of the inland resort establishments in the Province of Iloilo; it determined also the profile, level of awareness, extent of public participation, level of available resources, extent of enforcement, and extent of compliance; and significant association in terms of enterprise classification, length of business operation, number of rooms, number of employees, and number of recreational facilities. Finally, it determined significant correlations between awareness, public participation, available

resources, enforcement and compliance. Reasons for compliance are also determined and inputs for policy enhancement were determined in this study.

Theoretical Framework

Green Politics Theory (Vincent, 2018) defines the state of ecological and biological survival that integrates politics to human activity that has a significant impact on nature. Rational Choice Theory (Kesselman, et al., 2013) looks into how people make decisions and act which supports the Green Politics Theory particularly on SWM with the main goal of environmental protection. The Theory of Planned Behavior also explains how positive behavioral intentions lead to real actions.

Conceptual Framework



Hypotheses of the Study

It was hypothesized that no significant association exists between awareness, public participation, available resources, enforcement and profile of inland resorts; between awareness, public participation, available resources, enforcement and compliance; and no significant correlation exists between awareness, public participation, available resources, enforcement and compliance when grouped by enterprise classification.

Scope and Limitations of the Study

This study focused on factors associated with compliance of inland resort establishments in the Province of Iloilo to RA 9003. Data was collected

using a survey method among 34 inland resorts in the Province of Iloilo. The study was conducted from February to March 2020. However, the outbreak of COVID 19 pandemic resulted to uncollected surveys dealing only with available data collected which were tallied and submitted for statistical analysis using cross tabulation, means, frequency counts and percentages to determine the profile, level of awareness, extent of public participation, level of available resources, extent of enforcement, and extent of compliance. Association was determined using Gamma coefficient while correlation was determined using Partial correlation test. Linear regression test determined the predictors of compliance at .05 alpha.

METHODOLOGY

Research Design

This correlational research determined factors associated with compliance to RA 9003 of the inland resorts in the province of Iloilo using survey methods. Total enumeration technique was used in gathering data for this study.

Respondents of the Study

118 respondents from 23 inland resorts composed of managers/owners

and employees were the respondents of this study.

Validity and Reliability of Instrument

Survey forms were validated and pilot tested in Antique with .881 reliability coefficient. The manuscript was submitted for ethical review in January 2020.

Data Gathering Procedure

Surveys were distributed, collected, summarized and tallied for statistical treatment. Results were analyzed and interpreted for the discussion and presentation of the findings.

Data Processing Technique

Data were summarized and subjected for statistical analysis. Demographics, level of awareness, extent of public participation, level of

available resources, extent of enforcement and extent of compliance with RA 9003 were determined using means, frequency counts, percentages, and cross tabulation. Gamma coefficient determined the significant association among variables. Partial correlation tests determined significant correlation between compliance and awareness, public participation, available resources and enforcement.

RESULTS AND DISCUSSION

Majority of inland resorts were micro enterprises with 1 to 9 staff, less than 10 rooms, and two recreational facilities that had been open for less than 5 years and were not DOT accredited. Findings revealed a high level of awareness, public participation, available resources, enforcement and compliance to RA 9003. Based on the findings, it is concluded that compliance to RA 9003 is significantly associated with available resources and enforcement but not with awareness and participation. Strong correlation exists between participation and awareness, available resources, and enforcement while awareness is moderately correlated with resources and enforcement. However, moderate

correlation exists between enforcement and available resources and awareness but a strong correlation exists between enforcement and participation and available resources. In conclusion, awareness, public participation, available resources, and enforcement are not predictors of compliance

Conclusions

Inland resorts' high level of awareness to RA 9003 is highly connected with the very high extent of public participation resulting in compliance to RA 9003. High level of resources provided to comply with the law is strongly linked with the extent of enforcement of RA 9003 that absolutely influenced their compliance

to SWM law. Available resources and enforcement are linked to compliance, yet not predictors of compliance to SWM laws.

High compliance to RA 9003 is credited on resorts ability to sustain the SWM programs, strong public support among employees, guests and customers, strict implementation of no open-burning, open dumping, throwing, littering and burying of biodegradable and non-biodegradable materials in flood-prone areas and the trainings provided for sustainable SWM programs.

Recommendations

The effectiveness of a SWM program primarily depends on the

collaborative efforts of people from many sectors of the community sharing common knowledge of properly managing waste and complying by the law. The researchers recognized the need for a more intensified awareness campaign on SWM as necessary to promote environmental stewardship amongst community members since public awareness on SWM is a critical component of any SWM program that enables proper understanding of waste management issues. Increased awareness of people leads to better participation in SWM activities leading to better perception and attitudes towards environmental issues that stimulates full compliance to SWM law.

REFERENCES

- Amasuomo, E. et al., (2015). "Analysis of public participation in sustainable waste management practice in Abuja, Nigeria". *Macrothink Institute; Environmental Management and Sustainable Development*; ISSN2164-7682 (2015).
- Asase, M. (2009). "Comparison of municipal solid waste management systems in Canada and Ghana: A case study of the cities of London, Ontario, and Kumasi, Ghana". Researchgate.net
- Bagolong, S. (2016). "Revisiting the implementation of Republic Act 9003 or the ecological solid waste management Act of 2000: A community participation in Davao City. cscpcph.academia. edu.
- DAO (2008). DENR Administrative Order No. 2008 – 26. Revised implementing rules and regulations of Republic Act No. 7586 or the National Integrated Protected Areas System (NIPAS) Act of 1992. forestry.denr, gov,ph.

- Dataman, A. et al., (2012). "Assessment of solid waste management in the Islamic City of Marawi, Philippines", *International Journal of Science and Development*, 3(5).
Research Centre (IURC), Iqra – University Main Campus Karachi Pakistan Iqra University.
Mpra.ub.uni.menchen.de.
- Fernandez, M. E. (2018). "The implementation of ecological solid waste management". *International Journal of Advanced Research in Management and Social Sciences*. ISSN: 2278-6236. Vol. 7 No.2.
www.garph.co.uk.
- Galarpe, V.R.K & Heyasa, B.B (2017). "Solid waste management response of selected public secondary school science teachers". *International Journal of Advance and Applied Sciences*. DOI:10.21833/ijaas. 2017.07.016.
www.research gate.net.
- Geguinto, A. C. (2017). "Solid waste management practices of select State Universities in CALABARZON, Philippines". *Asia Pacific Journal of Multidisciplinary Researches*. 5(1-8); P-ISSN 2350-7756; E-ISSN 2350-8442; www.apjmr.com.
- Hasan, S.A., Subhani, M.I. & Osman, M.A. (2011). "Waste management in the various municipalities of various socio-economic conditions (An Empirical Evidence from Pakistan". Iqra University
Research Centre (IURC), Iqra – University Main Campus Karachi Pakistan Iqra University.
Mpra.ub.uni.menchen.de.
- Kesselman, M., Kreiger, J. & Joseph, W. (2013). "Introduction to comparative politics: Political challenges and changing Agendas". books.google.com
- Punongbayan, C. M. et al., (2014). "Waste management practices of an educational institution". *Asia Pacific Journal of Education, Arts and Sciences*, 1(4).
- Republic Act 9003 and its Implementing Rules and Regulations (IRR) the Ecological Solid Waste Management Act of 2000.
- Rola, A. C. (2019). "Challenges in governance and implementation of the solid waste management programs: Focus on Plastics". Regional Scientific Meetings – Visayas (Tacloban City).
- Vince, J. & Hardesty, B.D. (2018). "Governance solutions to the tragedy of the commons that marine plastics have become". School of Social Sciences, University of Tasmania, Launceston, TAS, Australia. Commonwealth Scientific and Industrial Research Organization, Canberra, ACT, Australia.
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