

# Policy Implementation in Environmental Management at Dedary Kriyamaha Villas Ubud

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**Abstract:** This study focused on analysing the implementation management environmental policy it is expected to be a reference for other villas in environmental management according to policies that have been set by the government, analyzing constraints or problem of Dedary Kriyamaha Villas, Ubud and in order to analyse that can be implemented in environmental management based on government policies at Dedary Kriyamaha Villas Ubud. The research method of this study was descriptive qualitative. The research data were collected through observations, interviews, literature studies, and documentations. The analysis of this study were obtained through interview method with the villa management and the local government. The conclusion of the study was the implementation of the environmental government policy, by using the implementation of Green Practice (green action, green product and green donation) constrained of the environmental government policy was about waste management implementation and a new policy by villa to be implemented optimally. The result of this research was regulation conducted by Dedary Kriyamaha Villas Ubud in implementing the environment regulation of environment management issued by local government.

**Keywords:** Implementation, Green Practice, Environmental Management.

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## Introduction

The impact of environmental problems that could result from various activities in the tourism sector requires a good and directed management in order to maintain sustainable tourism or green tourism. Villa was one of tourism sectors which was quite large in number and almost spread to all districts in Bali Province, there were many yet to aware about impact of their activities such as water pollution, waste generation, lack of electricity and water savings, so as, villas must concerned on their environmental management system in order to its activities towards eco-friendly villas and green tourism could support its marketing at the international level. According to Cerchione & Bansal (2020), Green Tourism is a term used for substantive sustainable tourism practices which cover environmentally, economically, and socio-culturally sustainable. Ringbeck et al. (2010) in the journal Budiantoro et al., (2015) also stated that Green Tourism must implement four pillars, namely: 1). Reduce carbon emissions resulting from tourism activities carried out; 2). Biodiversity conservation; 3). proper trash and waste management; 4). Maintaining the sustainable availability of water resources and green tourism requires a sustainable effort in environmental management. For this reason, strategic steps were needed in controlling efforts to prevent, reduce, and overcome the impacts that would occur. One of the control efforts was eco-friendly villas management so as, they could have more value in marketing the provided facilities.

As we know that the Government has issued Law of the Republic of Indonesia Number 32 of 2009 concerning Environmental Protection and Management and Law Number 18 of 2008 concerns with Waste Management, where Government Regulation regulates one of them is about controlling environmental damage caused by businesses and/or activities with forms of activities that can cause changes to the hue of the environment and cause an impact on the environment. One of the environmental managements that is the focus of this research is the management of waste caused by activities in the tourism sector because of its impact that can extend to water and soil pollution. Environmental Management could be directed by the existence of Government Regulation in the field of environmental management and it could be implemented in all aspects of its activities. Those Government regulations were followed up by the Bali Provincial Government with the issuance of Bali Governor Regulation Number 47 of 2019 concerning Source-Based Waste Management and Bali Governor Regulation Number 97 of 2018 concerning Restrictions on The Generation of Single-Use Plastic Waste. With the issuance of the Bali Provincial Government Regulation related to waste management and with the research location being in Gianyar Regency, the reference for local government policies at the regency level is Gianyar Regent Regulation Number 149 of 2018 concerning

Reducing the Use of Plastic Bags and Gianyar Regent Regulation Number 80 of 2021 concerning Guidelines for the Implementation of Household Waste Management and Similar Household Waste.

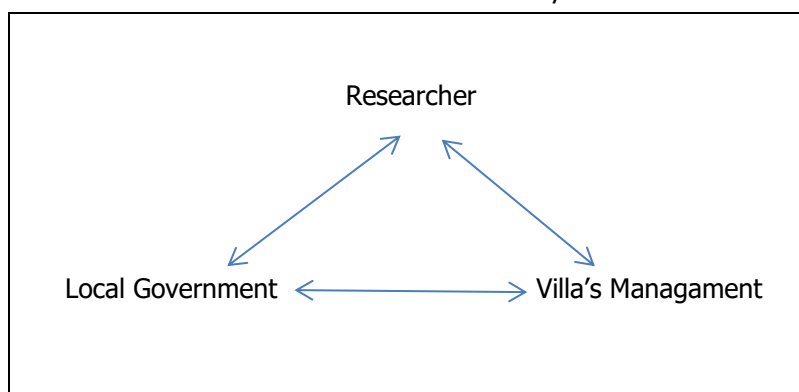
The implementation of government regulations at Dedary Kriyamaha Villas Ubud was applying Green Practice. It could be defined as a practice consisting of the efficient utilization of energy and water, recycling, sustainable food, reducing waste and also (Atzori et al., 2018). According to Halim et al., 2021 Green Practice also defined as a practice that consists of efficient use of energy and water, recycling, sustainable food, and reducing waste and pollution. Green Practice is an action to protect the environment and products and produce less damage to the environment (Tzschentke et al., 2004). Green Practice is a very important thing to be applied by the hotel / villa to reduce the impact of damage caused by the hotel / villa.

Green practice measures grouped by Fauziah et al., (2017) firstly Green Action is an activity aimed at protecting and having a positive impact on the environment, secondly is Green Products, which means as a products that are not harmful to humans or the environment in the production process it does not waste resources, do not produce excessive waste, and minimize negative impacts on nature, and thirdly is Green Donation, which is the hotel/villa's efforts to raise funds, participate in community projects and educate the public about the impact of environmental damage by hotels and how to deal with them. According to Teng et al., (2015), Green Practice is a program that encourages hospitality businesses to save water use and energy in order to reduce solid waste, reduce operational costs and preserve the environment. By the use of Green Practice concept, hotels/villas are expected to be able to carry out activities actively and continuously in supporting the implementation of policies in the environmental sector. Green Practices applied to Dedary Kriyamaha Villas Ubud were Green Action, Green Product and Green Donation in their activities to reduce the volume of generated waste on the policy implementation.

Dedary Kriyamaha Ubud has implemented green practices which refers to policies made by the government. According to Anderson in (Hill & Hupe, 2002) policy as a series of actions carried out by actors or several actors related to the problem. Post et al (1999) in (Wahab, 2021) also states that a policy is a plan or action carried out by government officials to achieve broader goals that affect the lives of the country's population. Dedary Kriyamaha Ubud applies the concept of Green Action, Green Product, and Green Donation that refers to the Gianyar Regent Regulation Number 149 of 2018 concerning on the Using of Plastic Bags Reduction and Gianyar Regent Regulation Number 80 of 2021 concerning on Guidelines for the Implementation of Household Waste Management and Type of Household Waste. These regulations were focused on how business owners in terms of villa business owners and theirs management had to implement environmental management towards green tourism. Based on these laws and regulations, it could be used as a guide so as, all activities at Dedary Kriyamaha Villas Ubud, Tegallalang, Gianyar Regency could realize green tourism through green practice in order to be well known as the future eco-friendly villa which became a guide for villas which were not yet to implement environmental management based on regulation.

## Method

The location of this research was conducted at Dedary Kriyamaha Villas Ubud on March 2022 – July 2022. This research used qualitative descriptive method. Data collection method were primary data (interviews at villas management and environmental government office, field observations with photo shoots or documentations) and secondary data collection were data from environmental government office about environmental management policy. The Source Triangulation Method was used to measure the validity of data.



**Figure 1.** Triangulation with three sources of data

From the application of this methodology, it could be described and explained the results obtained in this study on the implementation of Green practice that was carried out by Dedary Kriyamaha Villas Ubud on the implementation of government policies in field of environmental management.

## Result and Discussion

The result of this research study was a villa which implemented a green practice as an effort to implement the government policies in the field of environmental management which were consisted of green action, green products and green donations in all activities in villa facilities. This research was focused on the implementation of green practices in handling waste management at Dedary Kriyamaha Villas Ubud. Based on Government Regulation Number 22 of 2021 concerning on the Implementation of Environmental Protection and Management which is the implementing regulation of Law Number 11 of 2020 concerning on Job Creation, where the Government Regulation regulates the control of environmental damage that can be caused by businesses and/or activities with all forms of activity that can cause changes to the environment and cause impacts on the environment. One of the environmental management that became focus of this research study was the handling waste management that caused by the activities in the tourism sector because of its impact that could be effected the water and soil pollution. Thus, the Government Regulation that followed up by the Bali Provincial Government with the issuance of Bali Governor Regulation Number 47 of 2019 concerning on Source-Based Waste Management and Bali Governor Regulation Number 97 of 2018 concerning on Restrictions on the Generation of Single-use Plastic Waste. Based on the issuance of the Bali Provincial Government Regulation related to waste management and the research was conducted in Gianyar Regency, the references that used in conducting this research were the local government policies such as: Gianyar Regent Regulation Number 149 of 2018 concerning on Reducing the Use of Plastic Bags and Gianyar Regent Regulation Number 80 of 2021 concerning about Guidelines for the Implementation of Household Waste Management and Similar Household Waste. The facilities provided by Dedary Kriyamaha Villas Ubud including rooms, kitchens, restaurants and garden areas, that already applied the green action and the green products in implementing the two policies of the regional government.

The implementation of green action in the rooms were applied to the trash bin which was not using plastic as a layer of the container but the hotel used a trash bin that made from braided bamboo covered with zinc containers. The toiletries were not wrapped in plastic packaging, moreover, laundry bags were made from bamboo baskets, it was accordance to the Gianyar Regent Regulation Number No.149 of 2018 concerning on Reduction of the Use of Plastic Bags in Article 5 paragraph (1) Business actors are prohibited from using plastic bags and required to use eco-friendly alternative bags in order to reduce dependency on plastic bags; Article 5 paragraph (2) ; The prohibition on the use of plastic bags as referred in paragraph (1) is carried out in the letter h. of the hotel; the letter i.villa. The implementation of green products in the rooms such as free drink mineral water packaged in the glass bottles and mini bar drinks were packaged in can packaging. It was appropriate with Gianyar Regent Regulation Number 80 of 2021 concerning on Guidelines for the Implementation of Household Waste Management and Similar with Household Waste in Article 5 paragraph (1); Waste reduction as referred to in Article 4 letter a, is carried out on products, product packaging, and/or containers, which are difficult to decompose by natural processes, cannot be recycled, and/or cannot be reused. Paragraph (2): Products, product packaging, and/or containers, as referred to in paragraph (1) include: a. plastic; b. aluminium cans; c. glass; and d. paper. Article 6 paragraph (1): Business actors in carrying out waste reduction activities as referred to in Article 5 paragraph (1) use production materials that cause minimal waste, can be reused, can be recycled, and/or are easily decomposed by natural processes.

The implementation of green action in the kitchen was seen from the villa's rules were not provided take away/wrapping services on food and beverage to be enjoyed outside the villa's restaurant. It was aimed in order to reduce the use of plastic bags for wrapping the food and beverage. It was one of the implementations of Gianyar Regent Regulation No.149 of 2018 concerning on Reducing the Use of Plastic Bags in Article 5 paragraph (1); Business actors are prohibited from using plastic bags and required to use eco-friendly alternative bags in order to reduce dependency on plastic bags; Article 5 paragraph (2); The prohibition on the use of plastic bags as referred to in paragraph (1) is carried out in the letter "h" of the hotel; the letter "i" of the villa.

The implementation of green products can be seen from the ingredients' packaging for cooking that used recycle packaging, such as: the used of the packaging that can be refilled in order to reduce the volume of plastic waste from the kitchen. It was accordance with the Gianyar Regent Regulation Number. 80 of 2021 concerning on Guidelines for the Implementation of Household Waste Management and Type of Household Waste Article 6 paragraph (1); Business actors in carrying out Waste reduction activities as referred to in Article 5 paragraph (1); use production materials that cause waste to be minimally possible, reusable, recyclable, and/or easily decomposed by natural processes. Article 7 paragraph (1): Waste Reduction as referred to in Article 5 paragraph (1) is carried out through: a. restriction of Waste generation or Reduce; b. Waste Recycling or Reuse; and/or; c. reuse of Waste or Recycle.

The implementation of green action at restaurant did not provide *cutleries* made of plastic base (spoon, fork and knife) and plastic straw for beverages. It was the policy of the Gianyar Regent Regulation Number 80 of 2021 concerning on Guidelines for the Implementation of Household Waste Management and Type of Household Waste. The article 6 paragraph 1: the business actors in carrying out waste reduction activities as referred to the article 5

paragraph 1 used the production material that generated minimal waste, reuse, recycle, and were easily decomposed by natural processes. In this case, the villa had conducted the activity to reduce volume of plastic waste by using reuse tool with eco-friendly clean tools. The implementation of green product by using *cutl eries* cleaner product with eco-friendly product.

The implementation of green action in the area of villa; provided the facility of sorting organic waste and non-organic waste (bottles, papers and cans) so as, the produced wastes had been sorted by source activity in Villa. It was the policy of Gianyar Regent Regulation Number 80 of 2021 concerning on the guidelines of household waste management and the type of household waste in the article 9 : waste handling activity as referred in the article 4 letter b included : a. sorting, b. collecting, c. transportation, d. processing and e. waste final processing.

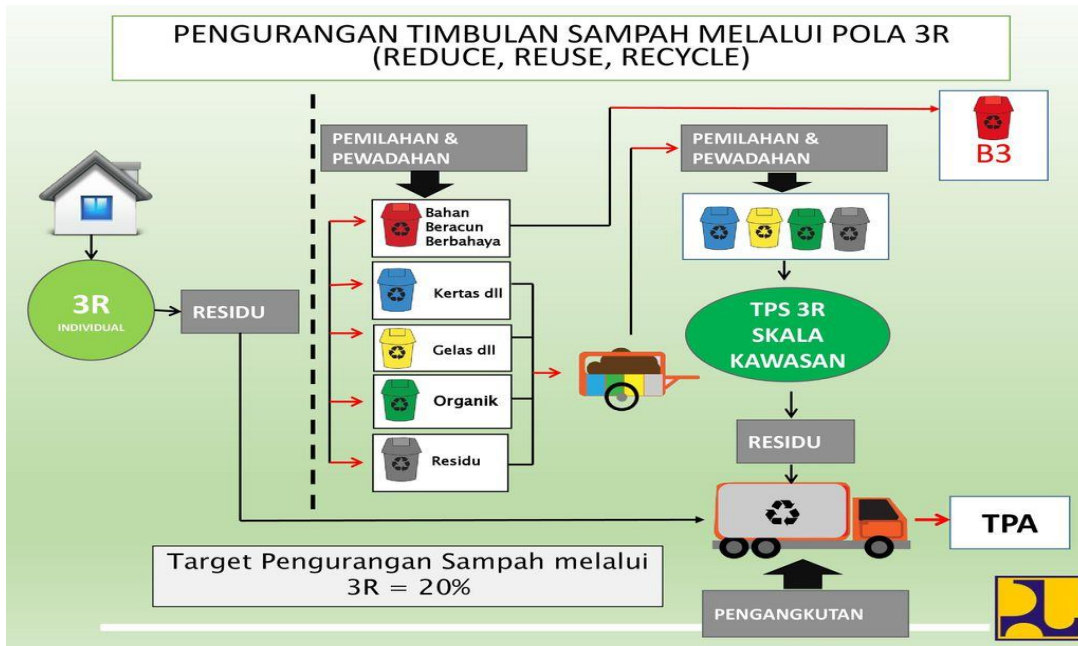
The article 10 paragraph (1): sorting as referred in the article 9 letter e in form of collecting and separating waste based on type, amount or characteristic of waste. The implementation of green product in the area of villa with the activity of organic trash became fertilizer for garden maintenance. It was the policy of Gianyar Regent Regulation Number 80 of 2021 concerning on the guidelines of household waste management and the type of household waste in the article 9: the activity of waste handling in the letter d; processing.

The implementation of green donation villa where Dedary Kriyamaha Villas Ubud also listed in *Pokdarwis* (travel awareness group) and supported several programs of *Pokdarwis*. Conducting mutual corporation activity, cleanliness activity to the waterfall area of nearby villa and cleanliness of temple routinely. At the certain times, Dedary Kriyamaha Villas Ubud had program for guests in hiking/ tracking activity, introduced guests about ecotourism, nature and culture of surrounding community. Another routine activity before pandemic of Covid -19, the guests were invited to recognize Balinese culture with making *Janur* (organic material) decoration.

The implementation which was conducted by the villa management had been carried out optimally in accordance with the policies of the Regional Government as stated in the Gianyar Regent Regulation No.149 of 2018 concerning on reducing the use of plastic bags and Gianyar Regent Regulation Number 80 of 2021 concerning on the guidelines for the implementation of household waste management and type of household waste. Green Practice strategy that had been carried out by all villa's facilities and human resources could be carried out as an effort of the implemented of management policies in the environmental sector.

The Regional Government such as Gianyar Regency Environmental Office of has followed up the Bali Provincial Government's policy specifically for waste management, namely Bali Governor Regulation Number 97 of 2018 concerning on Restrictions on the Generation of Single-Use Plastic Waste by issuing Gianyar Regent Regulation No.149 of 2018 concerning on reducing the use of plastic bags and Bali Governor Regulation Number 47 of 2019 concerning on Source-Based Waste Management by issuing Gianyar Regent Regulation Number 80 of 2021 concerning on Guidelines for the Implementation of Household Waste Management and Type of Household Waste.

The Regional Government had conducted coaching program by educating the communities about the importance of waste management from the source to reduce the volume of waste to *TPA (Tempat Pembuangan Akhir)* = Landfills, and by forming a system for the communities to carry out the waste management activities. The system was implemented by establishing a Primary Waste Bank (*Bank Sampah Induk*) at the urban areas which fostered several Local Waste Banks (*Bank Sampah Unit*) to reach the community to the rural areas. The existence of the Waste Bank (*Bank Sampah*), the communities knew that waste also had economic value. The Gianyar Regency Environmental Office created a work system of waste management that have been implemented throughout its work area. The system could be seen in the following picture:



Source: Environmental Government of Gianyar Regency (2021)

**Figure 2.** System of waste management control

The picture explained the efforts of reducing waste generation through the 3R (Reduce, Reuse, Recycle) due to communities' activities, both individuals or tourism actors who produced organic and non-organic waste, carried out by the availability of waste sorting facilities according to the type or characteristics of waste, transported in the waste condition has been disaggregated to the TPS3R / TPST / Waste Bank (*Bank Sampah*) = Integrated Waste Management Facilities and then processed until the residues transported to the TPA (*Tempat Pembuangan Akhir*) = Landfill.

For non-organic waste produced by the villa activities such as plastic waste, paper, cans, etc, it should be still in disaggregated conditions when it transported based on the characteristics/ types and taken to unit waste banks in local customary villages so that the waste could have economic value.

The current obstacle that found in Dedary Kriyamaha Villas Ubud was the disaggregated non-organic waste was not separated according to its type / characteristics and it was directly transported to the landfill (Final Processing Place) without passing through the TPST=Integrated Waste Management Facilities/Local Waste Bank, thus, the waste management regulation had not been implemented until the final stage and it was inappropriate according to government policy in the Gianyar Regent Regulation Number 80 of 2021 concerning on Guidelines for the Implementation of Household Waste Management and Type of Household Waste stated in the Article 4: Management of Household Waste and Type of Household Waste as referred to in Article 2 consists of: a. waste reduction; b. waste handling, meant that it was the mandatory of waste handling before transported to the landfill. It was due to the fact there was not waste bank facility or TPST/ Integrated Waste Management Facilities facility in the Kenderan village area, Tegallalang District, Ubud.



**Figure 3.** Condition of waste shelter at Dedary Kriyamaha Villas Ubud

## **Environmental Management Policy at Dedary Kriyamaha Villas Ubud**

Based on the implementation of environmental management regulation that had been carried out at Dedary Kriyamaha Villa and problems in implementation, the regulation that could be carried out by Dedary Kriyamaha Villas Ubud included:

Waste reduction activities could be carried out by reducing the use of products that were difficult to decompose by natural processes, reducing the use of products that could not be recycled and/or could not be reused such as reducing the use of plastic, aluminium cans or papers.

Waste handling activities could be carried out by sorting organic and non-organic waste. The produced organic waste could be used as fertilizer/compost thus, it could save expenses in maintaining the garden in the villa area. Non-organic waste due to problems with the absence of a Waste Bank or integrated waste management in the village of Kenderan, Tegallalang, Ubud, the villa management could cooperate with *Off Taker*, namely people or institutions who could guarantee purchases, or marketing or who could connect to a larger market, which was stated in the Regulation of the Gianyar Regent Number 80 of 2021 concerning on Guidelines for the Implementation of Household Waste Management and Types of Household Waste in Article 1 number 28.

Other regulations in accordance with Regulation of Gianyar Regent Number 80 of 2021 concerning on Guidelines for the Implementation of Household Waste Management and Types of Household Waste Article 11 Paragraph (2) The construction and management of waste bank and/ or integrated waste bank as referred to in paragraph (1) carried out by letter (d) ) Business actors; and the letter (e) ; Community. Then, Dedary Kriyamaha Villas Ubud could initiate budget procurement for CSR (Corporate Social Responsibility) together with other villas in the same area, the Traditional Village for the construction of waste bank and/or integrated waste management or Waste Bank Units, thus, the waste generated from the villa and the local community could have economic value and non-organic waste could be managed properly and very beneficial in reducing residues to the TPA (Final Processing Site).

## **Conclusion**

The result of this research study through the implementation of policies in the environmental field at Dedary Kriyamaha Villas Ubud could be concluded as follows:

The implementation of the Regional Government Regulation that had been implemented in Dedary Kriyamaha Villas Ubud was the implementation of green practices in all activities at Dedary Kriyamaha Villas Ubud, Tegallalang, Gianyar Regency, so it hoped can be used as a reference for surrounding villas that have not implemented the environmental management in accordance with existing laws and regulations.

The problems in environmental management experienced at Dedary Kriyamaha Villas Ubud were found at the final stage of the waste handling processes which came from all its activities, due to the absence of a Primary Waste Bank / Local Waste Bank or the absence of TPST (Integrated Waste Management Facilities) in the area around the villa, so it was necessary to carry out a new policy that implemented by the villa so, the implementation of policies in the field of environmental management could be optimally implemented.

The regulation that could be carried out by Dedary Kriyamaha Villas Ubud in order to optimally implement local government policies was to manage organic waste into organic fertilizer that could be used for garden maintenance in the villa area, and non-organic waste management of the villa management could carry out cooperation with *Off Taker*, namely people or institutions that could guarantee purchases, or marketing or who could connect to a larger market, which was mentioned Regulation of the Gianyar Regent Number 80 of 2021 concerning on Guidelines for the Implementation of Household Waste Management and Types of Household Waste in Article 1 number 28. Other regulation were in accordance with Regulation of Gianyar Regent Number 80 of 2021 concerning on Guidelines for the Implementation of Household Waste Management and Types of Household Waste Article 11 Paragraph (2) The construction and management of waste bank and/or integrated waste management as referred to in paragraph (1) carried out by letter (d) business actors; and the letter (e) ; Public. Then, Dedary Kriyamaha Villas Ubud could initiate budget procurement for CSR (Corporate Social Responsibility) together with other villas in the same area, for the construction of waste bank and/or integrated waste bank or Waste Bank Unit thus, the waste generated from the villa and the local community was managed into waste that could have economic value.

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