

Reconstruction of Source-Based Waste Management Policy in Supporting Sustainable Tourism in Bali

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Abstrack. This study examines the reconstruction of source-based waste management policies in supporting sustainable tourism in Bali which faces major problems in the aspect of policy implementation. Although there have been various regulations, the existing regulations are still declarative, not yet operational, and have not been able to integrate the legal substance, institutional structure, and legal culture of the community. On the other hand, Bali has the strength of local values such as Tri Hita Karana and mutual cooperation that have not been fully institutionalized in the formal legal system, so waste management still depends on social awareness, not binding legal obligations. This study uses a normative juridical method with a legislative, conceptual, and comparative legal approach to practice in Japan, South Korea, and Singapore. The results of the study show the need for policy reconstruction through a hybrid legal system model that integrates state law, customary law, economic instruments, education, and technology. This model emphasizes strengthening operational norms, institutional integration, and the proportional role of traditional villages and tourism industry players. Thus, waste management not only improves the quality of the environment, but also strengthens the competitiveness of Bali's sustainable and ecologically just tourism.

Keywords: policy reconstruction; source-based waste management; sustainable tourism in bali.

INTRODUCTION

The background to the problem in research regarding source-based waste management to support sustainable tourism in Bali departs from the reality that increasing tourism activities have had a significant impact on the volume and complexity of waste generation. Bali as an international tourist destination not only faces challenges in maintaining the quality of the environment, but also in maintaining its image as a culturally based and sustainable destination. The rapid growth of the tourism sector, on the one hand, makes a large economic contribution, but on the other hand causes serious ecological pressure, especially related to suboptimal waste management. This condition requires a waste management system that is not only technically effective, but also able to be integrated with social, cultural, and legal values that live in Balinese society.

The main problem in waste management in Bali does not lie in the absence of regulations, but in the lack of optimal policy design that is able to answer the needs of implementation in the field. Various laws and regulations, both at the national and regional levels, have actually regulated comprehensive waste management. However, these regulations are still general and declarative, so they do not provide clear operational guidelines related to the implementation mechanism, division of authority, as well as the supervision and sanction system. As a result,

policy implementation in the field is not uniform and tends to depend on the initiative of each region or community (Sirtha, 2002).

From the perspective of legal system theory, this condition indicates an imbalance between the substance of the law, the legal structure, and the legal culture. Legal substance that is not yet operational causes weak legal certainty, while institutional structures that have not been integrated cause fragmentation of authority between agencies. On the other hand, Bali actually has great strength in the aspect of legal culture, namely the existence of local values such as Tri Hita Karana, *awig-awig*, and the practice of mutual cooperation that has been firmly rooted in people's lives. These values are basically able to be the foundation in building a sustainable waste management system, because they have high social legitimacy. However, the strength of this legal culture has not been fully accommodated and institutionalized into the formal legal system (Hermawan, Waluyo, Subekti, Astuti, SR, Sugandha, Triwahyudi & Nugroho, 2020).

This disintegration between state law and customary law causes waste management practices in Bali to still depend on the social awareness of the community, not on legal obligations that have coercion. In many cases, the success of waste management is determined more by the active role of customary villages, *banjars*, and local communities, than by the effectiveness of formal regulations. This shows that there is a gap between legal norms and social practices that live in society. If this condition continues, it will be difficult to achieve sustainable waste management because it is not supported by a strong and integrated legal system.

In addition, the development of the tourism sector also adds to the complexity of the problem. Tourism industry players, such as hotels, restaurants, and other accommodation businesses, are one of the main contributors to waste generation in Bali. However, the sector's involvement in waste management systems is still not optimal and tends to be voluntary. Existing regulations do not yet explicitly regulate the obligations of business actors to participate in source-based waste management, so that the burden of management is more borne by local communities and local governments. This condition creates inequality of responsibility and hinders the creation of a fair and sustainable waste management system.

On the other hand, waste management institutions in Bali still face various obstacles, especially related to coordination between actors. Waste management involves various parties, ranging from local governments, official villages, customary villages, communities, to business actors. However, there is no clear and integrated coordination mechanism that is able to unite the roles of each actor in one complete system. As a result, there is often overlap of authority, lack of policy synchronization, and weak supervision of implementation in the field. This further strengthens the urgency to carry out a more systematic and operational institutional reconstruction.

When compared to other countries such as Japan, South Korea, and Singapore, it can be seen that the success of waste management is largely determined by the clarity of norms, institutional strength, and consistency of law enforcement. These countries have succeeded in building an integrated waste management system through a combination of operational regulations, economic instruments, and the use of technology. Although they have different approaches, the three show that the effectiveness of waste management does not only depend on public awareness, but also on a legal system that is able to direct and control behavior consistently (Dermawan, Lahming & Mandra, 2018).

However, the approach applied in those countries cannot be adopted directly in Bali, given the differences in social and cultural characteristics. Bali has a uniqueness in the form of the existence of customary laws and local values that are still alive and functioning in the community. Therefore, a more relevant approach is to build a hybrid legal system model that integrates state law with customary law. This model allows for the creation of a balance

between formal legal certainty and social legitimacy, so that the resulting policies are not only normatively effective, but also acceptable and implemented by society.

In this context, strengthening the principle of mutual cooperation is very important as a basis for building a participatory and sustainable waste management system. Gotong royong is not just a social tradition, but a form of local institution that has great potential to support policy implementation. However, in order to function optimally, this principle needs to be integrated into the formal legal system through more operational and binding arrangements. Thus, cooperation no longer depends only on moral awareness but becomes part of a legal obligation that has juridical consequences (Effendi, 2016).

In addition, strengthening the educational dimension through education and mainstreaming local values such as Tri Hita Karana is also a key factor in building community ecological awareness. Education plays a role not only in improving knowledge, but also in shaping sustainability-oriented legal behaviors and cultures. The integration of environmental education into formal curricula, social activities, and tourism practices will create a collective consciousness that supports source-based waste management (Faridawati & Sudart, 2021).

Thus, the background of the issues in this study shows that waste management in Bali faces complex challenges, which include legal, institutional, social, and cultural aspects. These problems cannot be solved through a sectoral approach, but require a comprehensive and integrative approach. Policy reconstruction through a hybrid legal system model is a relevant solution to answer these challenges, by integrating state law, customary law, economic instruments, and technology in a unified system.

Ultimately, effective and sustainable waste management will not only improve the quality of the environment, but also strengthen the competitiveness of Bali tourism at the global level. Success in managing waste will reflect Bali's ability to maintain a balance between economic development and environmental conservation, as reflected in the local values that are its identity. Therefore, efforts to reconstruct waste management policies are very important as part of a sustainable tourism development strategy that is ecologically just.

METHOD

This study uses a type of normative legal research with legislative, conceptual, and comparative legal approaches. The legislative approach is carried out by reviewing various regulations related to waste management and sustainable tourism to identify weaknesses in norms that are still declarative. A conceptual approach is used to analyze problems based on legal system theory and development law theory, especially related to the imbalance between legal substance, structure, and culture. Meanwhile, a comparative legal approach is carried out by examining waste management practices in Japan, South Korea, and Singapore as reference material in formulating more effective policies.

The legal materials used consist of primary, secondary, and tertiary legal materials obtained through literature studies. The analysis was carried out qualitatively by descriptive-analytical and prescriptive methods, namely describing the existing conditions of waste management in Bali and formulating policy reconstruction based on a hybrid legal system. This approach aims to produce policy formulations that have legal certainty, are institutionally effective, and are relevant to the social and cultural values of the Balinese people.

RESULT AND DISCUSSION

Problems of Source-Based Waste Management in Bali

The discussion on source-based waste management in the context of sustainable tourism in Bali shows that the main problem faced is not the absence of regulations, but in the lack of optimal policy design that is operational, integrated, and able to bridge the gap between legal norms and social practices that live in the community. Normatively, Bali already has a sufficient legal basis through Laws, Regional Regulations, and Governor's Regulations. However, these arrangements still tend to be declarative and have not fully answered the needs of implementation in the field. This has an impact on weak legal certainty, low coercion of norms, and the lack of an effective and sustainable waste management system.

From the perspective of legal system theory, this condition indicates an imbalance between the substance of the law, the legal structure, and the legal culture. Bali actually has great strength in the aspect of legal culture, namely the existence of local values such as Tri Hita Karana, awig-awig, and the practice of mutual cooperation that lives in the community. These values create a strong social legitimacy for environmental management practices. However, this power has not been fully institutionalized into operational formal legal norms, so waste management practices still depend on social awareness, not legal obligations that have juridical consequences (Sukerti, Sudarma & Pujaastawa, 2017).

To understand these gaps, a comparative legal approach was carried out by examining waste management systems in Japan, South Korea, and Singapore. The three countries show that the success of waste management is not only determined by public awareness, but also by clear regulatory design, strong institutions, and measurable compliance mechanisms.

Japan developed a collective discipline-based waste management model supported by the certainty of legal norms. Regulations in Japan are operational and detailed, regulating waste sorting obligations, transportation schedules, and other technical standards. In addition, Japan also applies the principle of producer responsibility through Extended Producer Responsibility, which requires producers to be responsible for the product life cycle. This system is strengthened by the use of waste to energy technology which is able to reduce the volume of waste while producing energy. Japan's success shows that the certainty of norms and consistency of law enforcement are able to shape the collective behavior of society in a sustainable manner (Wahyudi & Novitasari, 2018).

In contrast to Japan, South Korea has developed an economic instrument-based approach through a *volume-based waste fee* system. In this system, the community pays waste management fees based on the amount of waste produced. This mechanism creates incentives for the community to reduce waste generation and increase sorting. In addition, South Korea also implements recycling obligations accompanied by administrative sanctions. This approach suggests that law can function as a tool of social engineering through economic mechanisms that drive rational behavioral change (Hendra, 2016).

Meanwhile, Singapore is developing a waste management model based on institutional centralization and high technology. Waste management is carried out by one integrated authority, so that there is no overlap of authority. This system is supported by efficient incineration technology as well as very strict law enforcement. Consistency in law enforcement creates a high culture of compliance in society. The Singapore model shows that the effectiveness of waste management is highly dependent on the institutional strength and consistency of policy implementation (Chaerul & Zatadini, 2020).

The results of the comparison show that although the three countries have different approaches, there are fundamental similarities, namely clarity of norms, integrated institutions, and effective compliance mechanisms. These findings are the basis for formulating a reconstruction of waste management policies in Bali.

In the context of Bali, analysis based on legal system theory shows that the main problem lies in the legal substance that is not yet operational and the institutional structure that is still

fragmented. Existing regulations do not regulate in detail the obligations, implementation mechanisms, and clear sanctions. On the other hand, the institutional structure of waste management is still spread between various agencies without optimal coordination. This condition causes the implementation of the policy not to run effectively.

However, Bali has an advantage in the aspect of legal culture based on local values. Therefore, the direction of policy reconstruction should not directly imitate the models of other countries, but rather build a hybrid model that integrates the legal power of the state with customary law. This approach is in line with the theory of development law which places law as a means of community renewal.

In the perspective of development law, law functions not only as a tool of social control, but also as an instrument to direct social change. Countries such as Japan, South Korea, and Singapore are demonstrating a top-down model of legal development, where laws are centrally designed to drive social transformation. In contrast, Bali shows a bottom-up model that relies on the social power of the community. These two models have their own advantages and disadvantages (Dewi, 2016).

Bali has strong social legitimacy, but it has not been supported by adequate policy instruments. Therefore, the strategy needed is not to replace the existing model, but to strengthen it through the process of institutionalization. Local values that live in society need to be translated into operational legal norms, so that they have coercive force and sustainability.

Based on this analysis, a model of waste management policy reconstruction based on a hybrid legal system was formulated. This model integrates state law, customary law, economic instruments, and technology in a single system. State law functions to provide certainty of norms and institutional framework, while customary law provides social legitimacy. Economic instruments are used to drive behavior change, and technology is used to improve the efficiency and transparency of the system.

Strengthening the legal substance is carried out by formulating more operational norms, including the obligation to sort waste, the responsibility of producers, and the application of clear sanctions. From an institutional aspect, it is necessary to integrate waste management systems from the provincial level to customary villages. In addition, the implementation of economic instruments such as volume-based levies and incentives for business actors is important to encourage active participation.

This model also places indigenous villages as key actors in waste management. Through *awig-awig* and *pararem*, waste management obligations can be enforced socially and culturally. This integration creates a synergy between formal legal certainty and social legitimacy, thereby increasing policy effectiveness. In addition, the use of technology such as waste tracking systems and energy-based processing is an important part of supporting a modern and efficient system. Technology allows for more transparent and data-driven oversight, so that policies can be evaluated objectively.

In relation to sustainable tourism, this model has very strong relevance. Effective waste management will improve environmental quality, reduce the burden of landfills, and strengthen Bali's image as an environmentally friendly tourist destination. In addition, this model also creates ecological justice by distributing responsibilities proportionally between governments, communities, and business actors. Thus, waste management is no longer seen as a purely technical issue, but as an integral part of the tourism development strategy. The success of this system will determine Bali's competitiveness at the global level, especially in the context of increasing demands for sustainability and green tourism principles.

Overall, this discussion shows that the reconstruction of waste management policies in Bali must be carried out comprehensively through an integrative legal system approach. A

hybrid model that combines state law, customary law, economic instruments, and technology is the solution that is most relevant to the characteristics of Bali. This model is not only able to increase the effectiveness of waste management, but also strengthen the social legitimacy and sustainability of tourism. With this approach, law really functions as a means of community reform, as stated in the theory of development law. In the end, the success of waste management in Bali will be the main foundation in realizing sustainable tourism that is globally competitive and ecologically just.

Strengthening the Principle of Mutual Cooperation through Education and Mainstreaming the Value of Tri Hita Karana in Sustainable Tourism Waste Management

The strengthening of the principle of mutual cooperation in tourism waste management in Bali cannot be separated from the importance of integration between formal legal norms and local values that live in society. The hybrid legal system model that was built places the legal culture dimension as the main factor for the successful implementation of policies. In the Balinese context, the legal culture is not only formed from compliance with formal regulations, but also through the internalization of communal values rooted in the banjar system, customary villages, and the Tri Hita Karana philosophy. Therefore, education and the mainstreaming of local values are strategic instruments to form sustainable collective ecological awareness (Sumada, 2017).

In the perspective of legal system theory, legal culture is formed through the process of education, socialization, and the institutionalization of values. This shows that the success of waste management is not only determined by the existence of regulations, but also by the extent to which these regulations are able to shape people's behavior. Education in this case includes formal, non-formal, and social practices in the daily life of the Balinese people. Traditional activities, the tourism village system, and interaction between communities, business actors, and tourists are effective educational spaces in building environmental awareness (Arifianto, Yudanto & Sutriadi, 2023).

In line with the theory of development law, law must function as a means of social change. Therefore, the mainstreaming of Tri Hita Karana values in waste management regulations not only emphasizes the aspects of regulation and sanctions, but also the dimension of coaching and cultivation. The values of *parahyangan*, *pawongan*, and *palemahan* provide a strong ethical basis in encouraging community compliance with waste management, so that compliance is no longer coercive, but based on moral awareness (Hendra, 2016).

In the context of sustainable tourism, the integration of local values through education has a strategic role. Bali tourism develops because of the harmony between humans and the environment. Therefore, waste management regulations must contain the obligation to integrate environmental education based on local values in the curriculum, training of business actors, and socialization to tourists. With this approach, waste management becomes part of tourism culture and experience, not just an administrative obligation (Sutrisnawati & Purwahita, 2018).

Philosophically, the mainstreaming of Tri Hita Karana values in environmental education is a manifestation of the Balinese people's view of life which places harmony as the basis of life. Waste management is seen as a moral and spiritual responsibility, especially in maintaining a balance between human relations with the environment. Education is a means of internalizing these values so that they form the ecological behavior of society collectively (Setyawati & Siswanto, 2020).

Sociologically, Balinese society has a social structure that supports the process of learning values naturally through *banjars*, traditional villages, and tourist villages. The practice of mutual cooperation and the existence of *awig-awig* and *pararem* show that ecological

awareness has grown in the community. However, this condition has not been fully integrated with the formal legal system. Therefore, it is necessary to mainstream education in regulations as a bridge between living law and state law (Priyanta, 2015).

Juridically, strengthening local values-based education has a strong basis in the constitution and laws and regulations. Recognition of indigenous peoples, environmental conservation obligations, and sustainability principles in the tourism sector are legitimacy for the integration of local values into regulations. However, the existing arrangements are still declarative, so they require strengthening more operational norms.

In this context, a norm construction was formulated that places the educational dimension as an integral part of the waste management system. Environmental education is required in various sectors, business actors are required to participate in training, traditional villages are given the role of coaching agents, tourism villages are developed as learning centers, and incentives are given for those who succeed in building a waste-conscious culture. Thus, education is no longer adjunctive, but a structured legal obligation.

This normative construction emphasizes that education has a preventive, repressive, and promotive function in shaping people's behavior. The transformation of mutual cooperation through education will produce a legal culture based on collective awareness. This will ultimately strengthen the quality of the environment and support the sustainability of Bali tourism. Sustainable tourism in Bali relies heavily on institutional strengths built through collaboration between local governments, local communities, customary villages, and tourism industry players. The principle of mutual cooperation is the main basis in building an integrated institutional system. However, in practice, although mutual cooperation has run as a social culture, there is no operational legal arrangement to effectively integrate all actors.

The existing legal framework has actually provided the basis for participatory waste management. However, the applicable regulations still contain vague norms because they only emphasize the principle of mutual cooperation without being accompanied by technical guidelines, division of authority, and sanction mechanisms. As a result, implementation on the ground is not uniform and depends on the initiative of each community. The results of the study show that traditional villages, tourist villages, and banjars have functioned as effective social institutions in environmental management. However, these institutions do not yet have formal legitimacy in the legal system. This causes the involvement of tourism industry players to be voluntary and not legally binding, even though this sector is the main contributor to waste.

In addition, the absence of a clear coordination mechanism between the government, the community, and business actors creates gaps in policy implementation. The burden of waste management tends to be borne by local communities, while the industry's contribution is not optimal. This condition shows that there is an urgent need to strengthen institutions through more operational regulations. From the perspective of legal effectiveness theory, the weak substance of the law is the main factor in the low effectiveness of implementation. Institutional structures are actually in place, but they are not supported by clear norms. On the other hand, a strong legal culture of society has not yet been integrated into the formal legal system. This causes a mismatch between state law and customary law.

Therefore, it is necessary to reconstruct regulations that recognize local institutions as official legal actors. Tourism industry players must be required to participate in the gotong royong system as part of the licensing requirements. In addition, it is necessary to establish a cross-institutional coordination forum that involves all actors in waste management. The reconstruction of this norm is manifested in an arrangement that clearly regulates the division of authority between local governments, official villages, customary villages, communities, and business actors. Local governments play the role of policy makers and supervisors, official villages as administrative implementers, customary villages as reinforcers of social and

cultural norms, communities as main actors, and business actors as parties who are obliged to be responsible for the waste produced.

Philosophically, this institutional strengthening is rooted in the value of *Tri Hita Karana* and mutual cooperation as the basis of the life of the Balinese people. Sociologically, the need for an integrated management system arises from the increasing volume of waste due to tourism activities. Juridically, this regulation has a strong basis in laws and regulations that regulate waste management obligations by the government, the community, and business actors. Thus, institutional reconstruction aims to create legal certainty, improve the effectiveness of waste management, and ensure the involvement of all actors in a fair and proportionate manner. The integration between formal law and local values is expected to be able to make *gotong royong* not only a culture, but also an operational and binding legal system.

CONCLUSION

Source-based waste management in supporting sustainable tourism in Bali basically faces the main problem in the implementation aspect, not in the absence of regulations. The imbalance between the legal substance that is not yet operational, the fragmented institutional structure, and the strong but not yet institutionalized legal culture cause policies to not run effectively. Although Bali has the advantage of local values such as *Tri Hita Karana* and mutual cooperation, these forces have not been fully integrated into a formal legal system that has coercion. Therefore, policy reconstruction is needed through a hybrid legal system model that combines state law, customary law, economic instruments, education, and technology. This model places customary villages and local values as the basis of social legitimacy, while strengthening legal certainty and institutional effectiveness, so that waste management is not only technical, but also an integral part of the ecologically just sustainable tourism development strategy.

The local government of Bali needs to immediately formulate waste management regulations that are more operational and integrated by institutionalizing the role of customary villages, the banjar system, and *the value of Tri Hita Karana* into binding formal legal norms. The regulation must be accompanied by a clear division of authority between actors, the application of economic instruments such as volume-based levies, the obligation of participation of tourism industry players, and the strengthening of environmental education as a legal obligation. In addition, it is necessary to establish an integrated cross-institutional coordination mechanism and support the use of waste management technology, so as to create an effective, sustainable, and sustainable system that is able to increase the competitiveness of Bali tourism at the global level.

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