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## INTEGRATING ENVIRONMENTAL EDUCATION FOR HIGH SCHOOLS IN BALI BASED ON TRI HITA KARANA CONCEPT

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### Abstract

*The right to a healthy environment is fundamental for every Indonesian citizen, yet environmental challenges persist. Addressing these issues is not solely the government's responsibility; educational institutions also play a vital role. Schools must nurture future generations with the knowledge, skills, and ethics needed to promote sustainability. The government's strategy to raise environmental awareness includes integrating environmental education into curricula. This education aims to develop individuals who can actively contribute to environmental protection for both present and future generations. A suitable model for this integration is education based on the values of Tri Hita Karana (THK). THK emphasizes (1) nature preservation, (2) maintaining a healthy school environment, (3) ensuring school cleanliness, and (4) nurturing plant life. By embedding these values into education, schools can enhance students' awareness of environmental protection and empower them to contribute actively to sustainability efforts.*

**Keywords:** Tri Hita Karana, Environmental Education, curriculum

## I. INTRODUCTION

Environmental degradation is a critical issue facing Indonesia recently (Limbong et al., 2003; Parker et al., 2018; Prihantoro, 2014; Sulistiowati et al., 2022). The increasing severity of environmental degradation is becoming increasingly alarming and poses a direct threat to human life (Fugiel et al., 2017). According to data from the Ministry of Environment and Forestry, Indonesia generated approximately 65 million tons of waste in 2016, rising to 67 million tons in 2017. Furthermore, the Indonesian Institute of Sciences (LIPI) Oceanographic Centre reported that 35.15% of the country's coral reefs are in poor condition, with only 6.39% classified as being in excellent condition. These figures highlight the persistence of numerous environmental challenges (Saenko et al., 2020; Salimi et al., 2017; Voronkova et al., 2020), many of which remain unresolved. If left unaddressed, these problems could have profound consequences for human well-being in the future (Elena et al., 2020). Environmental degradation has denied Indonesians access to a healthy and sustainable environment. This is in direct conflict with Article 28H of the 1945 Constitution of the Republic of Indonesia, which guarantees the right of every citizen to a good and healthy environment (Chaidir & Fudika, 2019).

Tackling environmental degradation in Indonesia is not the sole responsibility of the government, but requires the collective efforts of all sectors of society, including educational institutions. Schools, in particular, must raise future generations with a strong awareness of environmental issues and the importance of sustainability (Gade, 2012; Mieg, 2014; Ventyrina et al., 2019). Therefore, school education should prioritize the development of individuals capable of applying the principles of sustainability and environmental ethics from an early age.

One of the government's strategies for promoting environmental awareness in schools is through environmental education. This form of education aims to change behavior and attitudes by improving knowledge, skills and awareness of

environmental values and issues in different sectors of society (Blanchet-Cohen & Reilly, 2017; Jose et al., 2017; Sergeevich et al., 2020; Williams & Chawla, 2016). Environmental education is expected to mobilize communities to actively participate in efforts to preserve and protect the environment for the benefit of present and future generations.

The implementation of environmental education is in line with Law No. 32 of 2009 on Environmental Protection and Management, in particular Article 65, Paragraph 2, which guarantees the public's right to environmental education. In addition, the 2010 joint agreement between the Minister of State for the Environment and the Minister of National Education (number 03/MENLH/02/2010 and number 01/II/KB/2010) mandates public participation in the fight against environmental pollution (PPLH).

Education has been chosen as the vehicle for implementing environmental education because it serves as a process of shaping individuals to take responsibility not only for themselves but also for their environment. Education is also seen as a key area for human, environmental and spiritual development. To successfully integrate environmental education into schools, an appropriate educational model is essential. One such model is education based on the values of Tri Hita Karana (THK).

THK is a form of local wisdom rooted in Balinese culture, although its significance extends beyond Bali and has been recognized by UNESCO (Candrawan, 2020; MacRae, 2017; Roth & Sedana, 2015). The concept of THK has been applied in various fields in Bali, including agriculture, architecture, community planning and village management (Atmadja & Saputra, 2014; Sukertha, 2015). However, its application in the education sector remains limited.

THK can be interpreted as three sources of well-being and happiness derived from the balance and harmony between: (1) man and God (*parhyangan*), (2) man and his fellow beings (*pawongan*), and (3) man and the natural environment (*palemahan*). These three dimensions - *parhyangan*, *pawongan* and *palemahan* - form the foundation for a life of

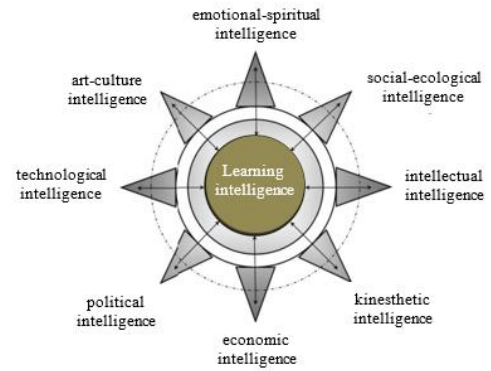
happiness, prosperity and sustainability.

The THK ideology has been used in Bali to organize various aspects of both material (sekala) and non-material (niskala) life. In education, the THK model seeks to cultivate students who embody the values of THK in both character and culture. Thus, THK-oriented education aims not only to foster harmonious relationships among people, but also to instill a deep sense of responsibility for the environment. By integrating THK's values into schools, young people can develop a sense of responsibility for their own well-being while actively preserving and caring for the environment.

Tri Hita Karana (THK) is a Balinese concept that emphasizes harmony between three key relationships: between humans and God (parhyangan), between humans and others (pawongan), and between humans and the natural environment (palemahan) (Ginaya et al., 2019; Roth & Sedana, 2015). THK envisions human beings as physically healthy, spiritually serene, and intellectually developed, able to harness life forces such as prana (vital energy), bayu (wind), and limp (strength).

In the context of education, THK-oriented education plays an important role in improving the quality and relevance of education for students. The THK educational model aims to transform schools into centers of cultural competence and self-concept development (Divayana et al., 2018; Primayana, 2018), fostering human resources rooted in a culture of learning (jnana), work (karma) and service (bhakti). This model shapes learners into individuals who embody intellectual and moral growth, emphasizing holistic intelligence as a core aspect of morality.

The Wiweka Sanga framework (Figure 1) represents the development of multiple intelligences - emotional-spiritual, social-ecological, intellectual, kinesthetic, economic, political, technological and artistic-cultural - through a balanced, harmonious life. These intelligences are nurtured based on the values of THK, which promotes harmony between man, God (parhyangan), society (pawongan) and the environment (palemahan).



THK-oriented education not only focuses on developing students' talents and skills for future employment but also places a strong emphasis on fostering environmental awareness. One of its core missions is to instill a deep sense of responsibility towards the environment. In this regard, THK-oriented education aims to create a school environment where harmony and well-being within the school community (*janahita*) are cultivated, while also promoting the establishment of a sustainable and ecologically balanced school environment (*buthahita*). Through this mission, schools become not only centers of learning but also models for environmental preservation and sustainability.

Law Number 32 of 2009, Chapter X, Article 65, Paragraph 2, stipulates that everyone has the right to environmental education. In accordance with this mandate, the government has been actively promoting environmental education through various initiatives, including integrating it into the educational sector. Environmental education seeks to alter behaviors and attitudes across different segments of society, aiming to increase knowledge, skills, and awareness regarding environmental values and issues (Otto & Pensini, 2017; Pamungkas et al., 2019). Ultimately, it is intended to mobilize communities to play an active role in environmental conservation and protection efforts, benefiting both current and future generations. This education encompasses the study of environmental challenges, particularly those related to pollution, resource depletion, environmental degradation, and conservation management.

The goals of environmental education can be outlined in five key areas (Chawla & Cushing,

2007; Hsu & Roth, 1998; Stern et al., 2008): (1) Knowledge to provide individuals, groups, and communities with the knowledge and experiences necessary to create and maintain a sustainable environment, (2) Awareness to enhance awareness and sensitivity among individuals and social groups regarding environmental issues and the interconnected challenges related to development, (3) Behavior to encourage a value-based approach that fosters concern for the environment and motivates individuals and communities to actively participate in its preservation, (4) Skills to equip individuals and groups with the skills needed to identify, anticipate, prevent, and resolve environmental problems, (5) Participation to offer opportunities and motivation for individuals, groups, and communities to engage in the creation of a sustainable environment. In conclusion, environmental education is essential for developing the ability to manage resources responsibly and for fostering a sense of accountability to future generations.

## II. METHOD

This study employs a qualitative research approach with a phenomenological focus. Phenomenology is a qualitative research method used to uncover the meaning and essence of a particular concept or experience (Moerer-Urdahl & Creswell, 2004; Padilla-Díaz, 2015). In this context, the research aims to explore and express the values inherent in Tri Hita Karana as a framework for integrating environmental education into schools. A literature review is conducted to gather relevant data, which is then analyzed using qualitative descriptive analysis. Through this process, the study seeks to illuminate how the values of Tri Hita Karana can serve as a foundation for enhancing environmental education in schools.

## III. RESULTS AND DISCUSSION

The concept of THK-oriented education is not new to Bali. It has long been integrated into the education system. This is evident in the layout

and use of school facilities such as school temples (*parhyangan*), the design of the school environment (*palemahan*) and the involvement of the school community (*pawongan*). Almost every school in Bali has a temple, often at the front of the school, reflecting the THK principle of harmony between man and God. In addition, the environmental design, which includes shaded areas and a variety of plants, is in line with the government's 'Green School' program. The act of greening and planting ornamental plants in schools has significant functional value. In addition to producing fresh oxygen, plants serve as valuable learning tools for students. A well-maintained, green environment contributes to the well-being of the school community, promoting both physical health and spiritual peace. By using plants and other natural elements as learning objects, students develop a sense of care and responsibility for their surroundings, fostering a culture of conservation that extends to the wider natural environment.

Given this foundation, THK-oriented education, as a form of local wisdom (indigenous wisdom), is highly suitable for integrating environmental education into schools (Perbowosari, 2019). For this to be effective, the core values of THK need to be incorporated into school curricula and assessment systems. To maximize the impact, all members of the school community - teachers, students, administrators and support staff - should embody and promote the ethical and performance values of THK. These values form the basis for character development and environmental stewardship among students. In addition, the school community needs to understand the values contained in each THK element. Understanding and knowledge of the values contained in THK will help the school community behave accordingly. The values contained in the THK element can be described in Table 1.

Tri Hita Karana (THK)		
Parhyangan Element Value	Pawongan Element Value	Palemahan Element Value
1. Awareness to Atman	1. The power of prana	1. Sarira awareness
2. Utilization of School Parhyangan	2. Think critically	2. Maintaining body health
3. Attitudes to clean physically and spiritually	3. Mutual cooperation	3. The functioning of the five faculties
4. Cultivating faith	4. Serve one another	4. Understanding the function of five motors
5. Foster piety	5. Effective communication	5. Nature preservation
6. Foster togetherness	6. Collaboration	6. Maintenance of the school environment
7. Eliminating selfishness	7. The responsibility of Java	7. Maintenance of school buildings
8. Cultivating the nature and integrative attitude	8. Culture of learning	8. Maintenance of school facilities
9. Building moral strength and mental strength	9. Creative	9. Maintain cleanliness of the school
	10. Innovative	10. Plant maintenance
	11. Productive	11. Preservation of Cultural arts
	12. Democratic	
	13. Open remains rooted in Balinese culture	
	14. Discipline life attitude	
	15. Mutual respect	
	16. Cultivated work	
	17. Discipline life attitude	
	18. The truth	
	19. Loyalty	
	20. Love	
	21. Without violence	
	22. Politeness	
	23. Tolerance	
	24. Honesty	
	25. Responsibility	
	26. Crafts	
	27. Tri Rich Parisuda	
	28. Asih, Pania, Bakti	
	29. Nyama braya	

Table 1. THK Values

Based on Table 1, it is evident that the values embedded in one of the THK elements, palemahan, have successfully integrated environmental education activities into schools. These values include: (1) nature conservation, (2) maintenance of the school environment, (3) cleanliness, and (4) plant care. Such principles undoubtedly foster students' awareness of the importance of environmental protection within their school setting. By internalizing these values, students are expected to enhance their knowledge, skills, and environmental awareness, motivating them to actively participate in environmental preservation and safety initiatives. In addition to serving as a medium for integrating environmental education, THK-oriented education also supports the development of students' mindsets and attitudes, encouraging the growth of emotional, spiritual, social-ecological, kinesthetic, and artistic-cultural intelligences (Suci et al., 2018). The inclusion of temples in schools, representing the parhyangan element, has been shown to nurture traits such as faith, piety, a culture of service,

solidarity, and mutual respect. This helps diminish egocentrism and transform exclusive mindsets into more integrative approaches, while also building moral fortitude, fostering mental resilience, and encouraging artistic and cultural talent as part of Indonesia's national identity.

Furthermore, the implementation of the parhyangan element through school temples has fostered a heightened awareness of God among students, resulting in a calmer, safer, and more focused learning environment. This spiritual foundation contributes to creating a conducive educational atmosphere, essential for delivering high-quality education. Additionally, the emphasis on parhyangan enhances harmony among the school community—students, educators, and staff—thereby reinforcing unity and collaboration.

#### IV. CONCLUSION

Based on the discussion above, it can be concluded that THK-oriented education can be used as an effort to integrate environmental education in schools. Through the concept of one of the THK elements, namely palemahan containing values such as: (1) preservation of nature, (2) maintenance of the school environment, (3) maintaining school cleanliness, and (4) caring for plants can certainly foster student awareness about the importance of protecting the environment so that it can play an active role in environmental preservation and safety efforts.

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