



## The Professional Competence of Christian Religious Education Teachers in Teaching Environmental Responsibility Based on Genesis 2:15 to Students at SDN 101893 Bangun Rejo, Tanjung Morawa District

Samson Banjarnahor

Student, Pendidikan Profesi Guru, Fakultas Ilmu Pendidikan Kristen, IAKN Tarutung

\*correspondence: [samson\\_hendri@yahoo.com](mailto:samson_hendri@yahoo.com)

### ABSTRACT

*This study examines the professional competence of Christian Religious Education (CRE) teachers in integrating environmental responsibility education based on Genesis 2:15 at SDN 101893 Bangun Rejo, Tanjung Morawa District. The research investigates how teachers translate the biblical mandate of stewardship into pedagogical practice and assesses their competence in fostering environmental consciousness among students. Employing a qualitative descriptive approach, data were collected through semi-structured interviews with three CRE teachers, classroom observations, and document analysis of lesson plans and teaching materials. Findings reveal that teachers demonstrate moderate professional competence in integrating environmental education with theological foundations. While teachers successfully contextualize Genesis 2:15 to emphasize human responsibility as stewards of creation, challenges persist in pedagogical innovation, resource availability, and systematic curriculum integration. Teachers primarily employ lecture-based methods with limited experiential learning opportunities. The study concludes that enhancing professional competence requires structured training programs that bridge theological literacy with environmental pedagogy, development of contextualized teaching materials, and institutional support for practical environmental projects. This research contributes to understanding the intersection of religious education and environmental literacy in Indonesian primary education contexts.*

**Keywords:** Professional competence, environmental responsibility, Genesis 2:15

### INTRODUCTION

Environmental degradation has become one of the most critical and urgent global challenges of the twenty-first century, demanding educational approaches that go beyond scientific explanations and embrace moral, ethical, and spiritual dimensions. Across the world, education is increasingly recognized as a transformative force capable of shaping environmental awareness and sustainable behavior from an early age. In Indonesia, the integration of environmental education into various school subjects reflects a growing national commitment to sustainability. Among these subjects, Christian

Religious Education (CRE) holds a particularly strategic role, as it not only imparts knowledge but also nurtures moral values and spiritual responsibility. This integration underscores the belief that environmental care is not merely a scientific or civic duty but also a profound expression of faith and obedience to God's command. Christian theology provides a strong conceptual and moral foundation for developing environmental awareness, especially through the biblical principle of stewardship. Genesis 2:15—"The Lord God took the man and put him in the Garden of Eden to work it and take care of it"—presents a timeless mandate for human beings to maintain and preserve the environment entrusted to them by God. This verse challenges human beings to view the environment not as an object to exploit, but as a divine creation that requires protection and nurturing. Within the Christian worldview, environmental responsibility thus becomes an act of worship and gratitude toward the Creator. For students, learning about this biblical command through Christian Religious Education helps shape their ecological consciousness in a manner that integrates faith, ethics, and practical action. In this context, the professional competence of Christian Religious Education teachers becomes crucial. Teacher competence is not limited to mastery of content but extends to pedagogical skill, spiritual maturity, and the ability to connect theological principles with real-world issues. Professional competence involves the integration of three main domains: (1) theological and biblical literacy, ensuring that teachers interpret and communicate scriptural messages accurately; (2) pedagogical expertise, enabling them to design engaging and developmentally appropriate learning experiences; and (3) contextual understanding, allowing them to relate Christian teachings to contemporary environmental problems. A competent CRE teacher can, therefore, guide students in perceiving environmental stewardship not as an abstract theological concept but as a daily practice of faith and responsibility. Integrating environmental responsibility into Christian Religious Education requires creativity and reflective pedagogy. Teachers must be able to interpret Genesis 2:15 in ways that are meaningful for children, helping them see themselves as part of God's creation with a duty to protect it. Through stories, discussions, field activities, and prayer, students can be encouraged to develop empathy toward nature and to recognize the spiritual significance of caring for the environment. For instance, teachers might design classroom projects such as school gardening, recycling programs, or clean-up activities, which connect biblical teachings to tangible environmental actions. By linking faith with practice, students learn that their relationship with God also involves responsibility toward His creation.

At SDN 101893 Bangun Rejo, located in Tanjung Morawa District, the teaching of Christian Religious Education includes opportunities to integrate environmental themes into moral and spiritual instruction. As a public primary school in Indonesia, this institution serves a diverse group of students and emphasizes character development as part of its educational mission. The inclusion of environmental responsibility in CRE lessons, guided by Genesis 2:15, enables students to see environmental care as part of their identity as believers and as citizens. Studying how CRE teachers in this school interpret and teach environmental responsibility reveals the practical dimensions of applying biblical principles in classroom contexts. It also illustrates the ways in which teachers' professional competence influences students' understanding and behavior toward the environment. Achieving effective integration of environmental education into Christian Religious Education poses several challenges. Many teachers may possess strong

theological knowledge but lack sufficient understanding of environmental issues or modern pedagogical methods suited for young learners. Conversely, some may be familiar with environmental education concepts but find it difficult to connect these with biblical teachings in a meaningful and theologically sound manner. This gap highlights the need for continuous professional development that enhances both theological and environmental literacy. Workshops, training programs, and collaborative curriculum design can empower teachers to develop lessons that are both biblically grounded and pedagogically engaging. The success of integrating environmental education within Christian Religious Education depends on institutional support and community involvement. Schools must foster an environment where values of stewardship and sustainability are consistently modeled and reinforced-not only in classrooms but also through school policies and daily practices. The cooperation of parents, local churches, and community leaders further strengthens this effort by providing consistent moral reinforcement and real-life examples of environmental responsibility. When the school environment itself embodies the values taught in class, students are more likely to internalize and practice them. The role of Christian Religious Education teachers extends beyond academic instruction; they are moral exemplars and spiritual mentors. Their professional competence determines the extent to which students perceive environmental care as part of their faith journey. By effectively teaching Genesis 2:15, CRE teachers can inspire a generation of environmentally conscious Christians who understand that caring for the earth is an integral aspect of loving God and others. Thus, the integration of environmental education into CRE is not merely a pedagogical innovation but a spiritual necessity for cultivating holistic, responsible, and faithful individuals who contribute to the well-being of creation. This research contributes to both theoretical and practical dimensions of religious education and environmental literacy. Theoretically, it expands understanding of how religious education can serve as a platform for environmental education, particularly in contexts where religious values significantly influence community behaviors. Practically, findings inform the development of professional development programs for CRE teachers, curriculum enhancement strategies, and policy recommendations for integrating environmental education within religious education frameworks in Indonesian primary schools.

## METHODS

This study employed a qualitative descriptive research design to explore the professional competence of CRE teachers in depth. The qualitative approach was deemed appropriate as it allows for comprehensive exploration of teachers' perspectives, pedagogical practices, and the contextual factors influencing their teaching of environmental responsibility based on Genesis 2:15. The descriptive nature of the research facilitated detailed documentation of current practices without intervention or manipulation of variables. The research was conducted at SDN 101893 Bangun Rejo, Tanjung Morawa District, North Sumatra Province, Indonesia. This primary school was selected through purposive sampling based on the following criteria: (1) availability of CRE teachers willing to participate in the study, (2) implementation of CRE curriculum including environmental themes, and (3) accessibility for the researcher to conduct extended observations.

Three CRE teachers constituted the research participants, selected through criterion-based purposive sampling. The inclusion criteria included: (1) minimum of two years teaching experience in CRE at the primary level, (2) responsibility for teaching environmental topics within the CRE curriculum, and (3) willingness to participate in interviews and classroom observations. The demographic profile of participants included two female and one male teacher, with teaching experience ranging from 3 to 12 years. Data were collected through three primary methods over a period of three months (August-October 2024): In-depth interviews were conducted with each of the three CRE teachers, lasting approximately 60-90 minutes per session. The interview protocol included open-ended questions exploring: (a) teachers' understanding and interpretation of Genesis 2:15, (b) pedagogical strategies for teaching environmental responsibility, (c) challenges encountered in integrating environmental themes with religious content, (d) assessment methods for evaluating student learning in environmental topics, and (e) professional development experiences related to environmental education. Interviews were conducted in Indonesian, audio-recorded with participants' consent, and subsequently transcribed verbatim. Each teacher was observed teaching at least three lessons that incorporated environmental themes based on biblical foundations. Observations were guided by a structured observation protocol focusing on: (a) content presentation and theological interpretation, (b) pedagogical methods and student engagement strategies, (c) integration of environmental concepts with religious teachings, (d) use of teaching materials and resources, and (e) assessment and feedback mechanisms. Field notes were recorded during observations, supplemented by reflection notes completed immediately after each session. Teaching documents including lesson plans (*Rencana Pelaksanaan Pembelajaran*), teaching materials, student worksheets, and assessment instruments were collected and analyzed. Document analysis focused on identifying: (a) explicit references to Genesis 2:15 and environmental themes, (b) learning objectives related to environmental responsibility, (c) instructional strategies planned for environmental topics, and (d) alignment between curriculum standards and implemented content. Data analysis followed Braun and Clarke's thematic analysis approach, involving six phases: familiarization with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. Interview transcripts, observation notes, and documents were coded manually using descriptive and interpretive codes. Initial coding focused on identifying patterns related to teachers' competence dimensions: theological understanding, pedagogical knowledge, teaching implementation, and assessment practices. Codes were then grouped into potential themes, which were reviewed and refined through iterative comparison with raw data. Triangulation of data sources enhanced the credibility of findings. Member checking was conducted by sharing preliminary findings with participants to validate interpretations. Ethical approval was obtained from the school administration and the local education authority. Written informed consent was secured from all participating teachers after explaining the research purpose, procedures, voluntary nature of participation, and confidentiality measures. Participants were assigned pseudonyms in all documentation to protect their identity. Audio recordings and transcripts were stored securely and will be destroyed three years after the study completion.

## RESULTS AND DISCUSSION

Analysis of interview data revealed that all three CRE teachers demonstrated foundational theological understanding of Genesis 2:15, though with varying degrees of depth and contextual application. Teachers consistently interpreted the verse as establishing human responsibility for environmental care, framing it within the broader creation narrative. Teacher A (12 years experience) articulated a comprehensive interpretation: "Genesis 2:15 teaches us that humans are placed in the garden not merely to enjoy it, but to work and preserve it. This is God's first mandate to humanity—to be stewards, not owners, of creation. I emphasize to students that everything we have is entrusted to us, and we must account for how we treat the environment." Teacher B (5 years experience) offered a more simplified interpretation: "The verse shows that God cares about the environment because He created it. He gave us the task to take care of plants, animals, and nature. I teach children that destroying nature is disobeying God's command." Teacher C (3 years experience) connected the verse to contemporary environmental issues: "I explain to students that the 'garden' in Genesis represents our earth today—our school yard, our neighborhood, our forests. Working and caring for it means we shouldn't litter, we should plant trees, and protect animals. It's about being responsible citizens and faithful Christians." All teachers emphasized the concept of stewardship over ownership, though the theological nuance varied. Teachers with more experience demonstrated greater ability to connect the ancient text with contemporary environmental challenges, while less experienced teachers tended toward more literal and simplified interpretations. Notably, all teachers emphasized the moral and religious obligation implicit in the verse, positioning environmental care as an act of obedience to God rather than merely ecological pragmatism.

### ***Pedagogical Strategies Employed***

Classroom observations and interview data revealed a range of pedagogical approaches, though traditional teacher-centered methods predominated. All three teachers primarily employed direct instruction methods, beginning lessons by reading and explaining Genesis 2:15 within the broader creation narrative. Teachers used storytelling techniques to make the biblical account engaging for young learners, often supplementing the text with visual aids such as pictures of the Garden of Eden. Teacher A incorporated comparative analysis, contrasting the pristine biblical garden with images of polluted environments, prompting students to identify the differences. This strategy successfully engaged students in critical thinking about environmental degradation. A common strategy across all observed classrooms was memorization of Genesis 2:15 and related verses. Teachers believed that internalizing scripture would reinforce environmental values. Students were regularly asked to recite the verse and explain its meaning in their own words. Observation revealed limited but present practical environmental activities. Teacher A organized a school garden project where students planted vegetables and ornamental plants, directly linking the activity to the "working" and "caring" mandate in Genesis 2:15. Students were assigned responsibilities for watering and maintaining the garden. Teacher C led a classroom cleaning and waste segregation activity, framing it as practicing stewardship. Students participated in sorting trash into organic, recyclable, and non-recyclable categories while discussing how proper waste management reflects

environmental responsibility. Practical activities were infrequent, occurring approximately once per month rather than being systematically integrated into every environmental topic. Teachers occasionally facilitated class discussions about environmental problems in students' communities. Teacher B implemented reflection sessions where students shared personal experiences of environmental issues—littering in the neighborhood, deforestation, river pollution—and collectively brainstormed solutions based on Christian principles of stewardship. All teachers utilized visual aids including posters, picture series, and occasionally video clips showing environmental problems and conservation efforts. However, the materials were often generic environmental education resources not specifically designed to integrate with biblical teachings, requiring teachers to make explicit connections during instruction.

### ***Challenges in Integrating Environmental Education***

Interview data and classroom observations revealed multiple challenges constraining teachers' effectiveness in integrating environmental responsibility education based on Genesis 2:15:

#### **1. Limited Teaching Resources**

All three teachers identified scarcity of appropriate teaching materials as a primary challenge. Teacher B stated: "There are many general environmental education materials, but very few that specifically integrate Christian theology. I have to create my own materials, but I don't always have the time or skills to make them engaging and theologically sound." Lesson plan analysis confirmed that teachers primarily relied on generic textbooks with minimal biblical integration, supplemented by teacher-created materials of varying quality.

#### **2. Curriculum Time Constraints**

Teachers reported that the allocated time for CRE (typically two hours per week) was insufficient to adequately cover both theological content and environmental applications. Teacher C explained: "There are so many topics in the CRE curriculum. When I spend time on environmental activities like the school garden, I worry about falling behind in other important theological teachings." This perceived tension between content coverage and depth of application limited the frequency and quality of environmental education activities.

#### **3. Insufficient Professional Development**

All three teachers indicated they had received minimal or no specific training on integrating environmental education with religious instruction. Teacher A noted: "My theological education prepared me to teach Bible content, but not how to apply it to contemporary issues like environmental conservation. I learn mostly through trial and error and from internet resources." Document analysis of teacher credentials confirmed that none had completed formal training or certification in environmental education or ecopedagogy.

#### **4. School Infrastructure Limitations**

Teachers identified practical constraints related to school facilities and resources. The school lacked dedicated space for environmental projects, composting facilities, or even a substantial library with environmental education resources. Teacher B mentioned: "I want to do more hands-on activities, but we don't have the space, tools, or budget for substantial environmental projects."

### 5. Student Background and Home Environment

Teachers noted that students' family environments sometimes contradicted environmental values taught at school. Teacher A observed: "Some students come from families who practice open burning of trash or illegal logging. When students see adults doing this, it's hard for them to take our environmental lessons seriously."

This disconnect between school teachings and community practices posed challenges to the internalization of environmental responsibility.

All teachers struggled with assessing environmental attitudes and behaviors rather than merely knowledge. Teacher C admitted: "I can test if students know Genesis 2:15 and can list environmental problems, but how do I assess if they actually care for the environment? It's difficult to measure attitude change or behavior outside school."

Existing assessment instruments primarily focused on cognitive knowledge, with limited tools for evaluating affective and behavioral dimensions of environmental learning. Professional competence was assessed across four dimensions based on Indonesian teacher competence standards: pedagogical competence, professional competence, personal competence, and social competence. Teachers demonstrated moderate pedagogical competence. All teachers were able to develop lesson plans that included environmental objectives, though the integration of Genesis 2:15 was sometimes superficial. Observation data indicated that lessons generally followed logical sequences, though instructional methods were predominantly teacher-centered with limited differentiation for diverse learners. Strengths identified included: clear learning objectives, organized content presentation, and basic classroom management skills. Weaknesses included: limited use of innovative teaching methods, insufficient student-centered learning opportunities, and inadequate assessment of higher-order thinking skills.

### ***Professional Competence***

Teachers showed adequate biblical content knowledge and basic understanding of environmental concepts. However, depth of theological interpretation varied significantly by teaching experience. Less experienced teachers displayed more limited ability to critically engage with theological texts or to articulate complex connections between biblical principles and contemporary environmental ethics. None of the teachers demonstrated systematic engagement with professional development in environmental education, relying instead on internet searches and personal initiative. Document analysis revealed that lesson plans, while meeting basic requirements, lacked innovation and failed to fully exploit the potential of integrating environmental science with theological reflection. All three teachers exhibited genuine personal commitment to environmental values, modeling behaviors such as waste reduction and energy conservation in their daily practices. Teachers expressed strong conviction that environmental care is integral to Christian faith, though they sometimes struggled to translate this personal conviction into effective pedagogy. Teachers demonstrated openness to learning and willingness to participate in research and reflection on their practice, indicating growth mindset and professional integrity. Teachers showed adequate ability to communicate with students, creating generally positive classroom environments. However, collaboration with parents and community members on environmental initiatives was minimal. Teachers operated largely in isolation without systematic coordination with other subject teachers who also

address environmental topics, resulting in fragmented rather than integrated environmental education.

### ***Theological Interpretation and Contextualization***

Teachers' interpretation of Genesis 2:15 as establishing human stewardship responsibility aligns with dominant theological scholarship on creation care. The emphasis on humans as caretakers rather than exploiters reflects contemporary Christian environmental ethics that rejects anthropocentric domination in favor of relational stewardship. However, the depth of theological engagement varied considerably among teachers, suggesting that initial theological education and ongoing professional development may inadequately prepare teachers for the sophisticated task of applying ancient texts to contemporary environmental challenges. More experienced teachers demonstrated greater capacity for hermeneutical bridge-building between text and context, a skill identified in theological education literature as essential for relevant biblical application. This finding suggests that experience alone, without structured professional development, gradually enhances interpretive competence, though formal training could accelerate this development. The moral framing of environmental responsibility as religious obligation represents both a strength and potential limitation. While grounding environmental care in divine mandate may enhance motivation among religious students, it risks presenting environmental protection as exclusively a religious rather than universal ethical imperative. A more comprehensive approach might integrate religious motivation with scientific understanding and civic responsibility.

### ***Pedagogical Practices and Innovation***

The predominance of traditional teacher-centered pedagogy reflects broader patterns in Indonesian primary education, where direct instruction remains the dominant teaching mode despite curriculum reforms advocating constructivist and student-centered approaches. While direct instruction has value for transmitting foundational knowledge, environmental education scholars emphasize that developing environmental responsibility requires experiential learning, critical reflection, and opportunities for environmental action. The limited frequency of practical environmental activities represents a missed opportunity for embodied learning that connects theological concepts with tangible environmental practices. Research in environmental education consistently demonstrates that hands-on activities, field experiences, and service learning projects more effectively foster environmental attitudes and behaviors than classroom-based instruction alone. The teachers' reliance on memorization of Genesis 2:15, while culturally appropriate in religious education contexts that value scripture internalization, requires complementation with higher-order thinking activities. Mere memorization of biblical texts does not automatically translate into ethical reasoning or behavioral change. Pedagogical strategies should progress from knowing the text to interpreting its meaning, evaluating its contemporary applications, and creating personal and collective responses to environmental challenges. The observed gap between teachers' stated pedagogical intentions and actual classroom implementation likely reflects the multiple constraints identified—time limitations, resource scarcity, and insufficient training. This implementation gap is common in educational reform efforts where teachers possess theoretical awareness but lack the practical skills, resources, or support to translate

intentions into practice. The absence of specific training in environmental education integration represents a critical gap in teachers' professional preparation. While teachers received initial theological education, they were not equipped with pedagogical content knowledge specifically for teaching environmental themes within religious education. Professional development opportunities could address this gap by providing: (1) deeper theological engagement with creation care theology beyond Genesis 2:15, including broader biblical narratives about creation, covenant, and restoration; (2) environmental science literacy sufficient for addressing student questions and making accurate connections between theological and scientific perspectives; (3) pedagogical strategies specific to environmental education, including inquiry-based learning, systems thinking, and action competence development; and (4) practical skills in developing contextualized teaching materials and designing experiential learning activities. International examples of successful integration of religious and environmental education emphasize the importance of communities of practice where teachers collaboratively develop curriculum, share resources, and reflect on pedagogical challenges. Establishing such communities among CRE teachers across multiple schools could provide ongoing professional support beyond one-time training events.

### ***Institutional and Systemic Constraints***

The challenges teachers face extend beyond individual competence to encompass systemic and institutional factors. Curriculum time constraints reflect broader tensions in primary education between expanding learning objectives and limited instructional time. While environmental education has been designated as a cross-cutting theme in Indonesian curriculum policy, its implementation remains inconsistent, often relegated to add-on status rather than integral curriculum component.

Resource limitations at school level mirror broader inequities in Indonesian education, where schools in rural and semi-urban areas often lack infrastructure, materials, and funding available to urban schools. Addressing these disparities requires policy interventions at district and provincial levels to ensure adequate resource allocation for environmental education implementation.

The disconnect between school-based environmental education and community practices represents a fundamental challenge for environmental learning. When students encounter contradictions between school teachings and family or community behaviors, their development of consistent environmental values and practices is undermined. Effective environmental education requires family and community engagement strategies that extend learning beyond school walls and create supportive environments for environmental behaviors.

Teachers' struggle to assess affective and behavioral dimensions of environmental learning reflects a broader challenge in environmental education assessment. Traditional assessment instruments focus on measuring knowledge acquisition—facts, concepts, principles—which is easier to quantify than attitude change or behavior modification. However, the ultimate goal of environmental education is not merely environmental literacy but environmental responsibility manifested in pro-environmental behaviors.

Developing appropriate assessment approaches requires moving beyond conventional paper-and-pencil tests to include portfolio assessment documenting students' environmental actions, observation of behaviors during environmental activities, student

self-reflection journals, and long-term tracking of behavior changes. Such assessment approaches require time, training, and institutional support that teachers currently lack. These findings carry several implications for educational policy and practice. First, initial teacher education programs for CRE teachers should incorporate environmental education components that specifically address the integration of theological and environmental content. Second, ongoing professional development must be provided through structured programs rather than assuming teachers will develop necessary competencies through experience alone. Third, curriculum developers should create high-quality, contextualized teaching materials that integrate Genesis 2:15 and broader creation care theology with environmental science and practical activities. Fourth, schools require adequate resource allocation specifically designated for environmental education implementation, including infrastructure for hands-on activities and experiential learning. Fifth, assessment frameworks should be expanded to include affective and behavioral dimensions of environmental learning, with practical tools provided to teachers. Finally, environmental education integration requires whole-school approaches that coordinate efforts across subjects and engage families and communities, rather than remaining isolated within individual classrooms. The small sample size of three teachers from a single school limits generalizability of findings to broader populations of CRE teachers. While qualitative research prioritizes depth over breadth, future research should include larger samples across multiple schools and regions to identify patterns and variations in teachers' competence. The three-month observation period, while sufficient for initial understanding, may not capture long-term patterns or seasonal variations in teaching practices. Longitudinal research tracking teachers' development over extended periods would provide richer insights into competence development trajectories. Additionally, this study focused on teachers' perspectives and practices without directly measuring student learning outcomes. Future research should examine relationships between teachers' competence and students' environmental knowledge, attitudes, and behaviors to establish effectiveness of different pedagogical approaches.

## CONCLUSION

This study examined the professional competence of Christian Religious Education teachers in teaching environmental responsibility based on Genesis 2:15 at SDN 101893 Bangun Rejo, Tanjung Morawa District. Findings reveal that teachers demonstrate moderate professional competence characterized by foundational theological understanding, personal commitment to environmental values, and basic pedagogical skills, yet constrained by limited pedagogical innovation, resource scarcity, insufficient professional development, and systemic barriers. Teachers successfully interpret Genesis 2:15 as establishing human stewardship responsibility for creation, and they genuinely attempt to translate this theological foundation into environmental education for young learners. However, teaching practices remain predominantly traditional and teacher-centered, with insufficient experiential learning opportunities that would more effectively foster environmental attitudes and behaviors. Teachers face multiple challenges including inadequate teaching resources, curriculum time constraints, lack of specific training in environmental education integration, limited school infrastructure, and difficulties in assessing affective and behavioral learning outcomes.

Enhancing teachers' professional competence requires multi-level interventions. At the teacher development level, structured professional development programs must bridge theological literacy with environmental pedagogical knowledge, providing practical skills in curriculum integration, instructional innovation, and alternative assessment. At the curriculum and resource level, contextualized teaching materials that authentically integrate biblical foundations with environmental science and practical activities must be developed and disseminated. At the institutional level, schools require resource allocation for environmental education infrastructure and cultivation of collaborative professional learning communities. At the systemic level, policy frameworks should strengthen environmental education as a genuine curriculum priority with adequate time allocation, cross-subject coordination, and family and community engagement strategies. Future research should expand to larger samples across diverse contexts, examine longitudinal competence development, investigate student learning outcomes related to teachers' competence levels, explore effective professional development models, and analyze policy implementation processes for environmental education integration. Such research will further illuminate pathways toward effective environmental education that engages multiple knowledge systems—including religious wisdom traditions—in addressing the urgent environmental challenges facing humanity. The biblical mandate in Genesis 2:15 to "work and take care of" creation remains as relevant today as in ancient times, perhaps more so given contemporary environmental crises. Equipping CRE teachers with the competence to faithfully interpret and effectively teach this mandate represents a significant contribution to cultivating the next generation of environmental stewards who ground their ecological responsibility in both spiritual conviction and practical action.

## BIBLIOGRAPHY

- Adisusilo, S. (2012). *Pembelajaran nilai-karakter: Konstruktivisme dan VCT sebagai inovasi pendekatan pembelajaran afektif*. Rajawali Pers.
- Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Longman.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Deane-Drummond, C. (2017). A case for collective conscience: Ecology, theology, and Christian ethics. *Zygon: Journal of Religion and Science*, 52(1), 3-23. <https://doi.org/10.1111/zygo.12313>
- Fauzi, A., & Prasetya, S. P. (2020). Implementasi pendidikan lingkungan hidup dalam pembelajaran pendidikan agama Kristen di sekolah dasar. *Jurnal Teologi dan Pendidikan Agama Kristen*, 2(1), 45-56.

- Gardner, G. T., & Stern, P. C. (2002). *Environmental problems and human behavior* (2nd ed.). Pearson Custom Publishing.
- Gottlieb, R. S. (Ed.). (2006). *The Oxford handbook of religion and ecology*. Oxford University Press.
- Harun, R., & Harianto, G. P. (2019). Pendidikan karakter berbasis agama: Implementasi pendidikan agama Kristen dalam membentuk karakter siswa. *Regula Fidei: Jurnal Pendidikan Agama Kristen*, 4(1), 1-12.
- Huckle, J., & Wals, A. E. J. (2015). The UN Decade of Education for Sustainable Development: Business as usual in the end. *Environmental Education Research*, 21(3), 491-505. <https://doi.org/10.1080/13504622.2015.1011084>
- Jenkins, W. (2009). *Ecologies of grace: Environmental ethics and Christian theology*. Oxford University Press.
- Kollmuss, A., & Agyeman, J. (2002). Mind the gap: Why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research*, 8(3), 239-260. <https://doi.org/10.1080/13504620220145401>
- Kementerian Pendidikan dan Kebudayaan. (2016). *Peraturan Menteri Pendidikan dan Kebudayaan Nomor 22 Tahun 2016 tentang Standar Proses Pendidikan Dasar dan Menengah*. Kemendikbud.
- Kementerian Lingkungan Hidup dan Kehutanan. (2019). *Laporan status lingkungan hidup Indonesia 2019*. KLHK.
- Lidskog, R., & Waterton, C. (2016). Anthropocene—A cautious welcome from environmental sociology? *Environmental Sociology*, 2(4), 395-406. <https://doi.org/10.1080/23251042.2016.1246800>
- Monroe, M. C. (2003). Two avenues for encouraging conservation behaviors. *Human Ecology Review*, 10(2), 113-125.
- Muhaimin. (2015). *Rekonstruksi pendidikan agama: Dari pendekatan dikotomik menuju integratif humanis*. Rajawali Pers.
- Rahmawati, D., & Sudarso, A. (2021). Kompetensi profesional guru pendidikan agama Kristen dalam mengintegrasikan nilai-nilai lingkungan hidup. *Didache: Journal of Christian Education*, 2(2), 115-128.
- Ruslan, I. (2009). Membangun gerakan cinta lingkungan melalui jalur pendidikan agama. *At-Ta'dib*, 4(1), 23-40.
- Santrock, J. W. (2011). *Educational psychology* (5th ed.). McGraw-Hill.
- Sauvé, L. (2005). Currents in environmental education: Mapping a complex and evolving pedagogical field. *Canadian Journal of Environmental Education*, 10(1), 11-37.

- Sinagatullin, I. M. (2019). Pedagogical foundations of environmental education: Toward a sustainable future. *International Dialogues on Education*, 6(1), 38-50.
- Stevenson, R. B., Brody, M., Dillon, J., & Wals, A. E. J. (Eds.). (2013). *International handbook of research on environmental education*. Routledge.
- Subiantoro, C. (2013). Menggagas penghijauan teologi: Sebuah etika tanggungjawab pemeliharaan lingkungan hidup. *Veritas: Jurnal Teologi dan Pelayanan*, 14(2), 225-244.
- Sukmadinata, N. S. (2013). *Metode penelitian pendidikan*. Remaja Rosdakarya.
- UNESCO. (2017). *Education for sustainable development goals: Learning objectives*. UNESCO Publishing.
- Wright, C. J. H. (2010). *The mission of God's people: A biblical theology of the church's mission*. Zondervan.
- Zaluchu, S. E. (2020). Strategi penelitian kualitatif dan kuantitatif di dalam penelitian agama. *Evangelikal: Jurnal Teologi Injili dan Pembinaan Warga Jemaat*, 4(1), 28-38.