

Environmental Care Character as a Managed Chain: A Strategic Management Analysis of the *Adiwiyata* Program in an Islamic Primary School

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ABSTRACT

Environmental degradation driven by plastic waste has intensified the demand for schools to cultivate environmental care as a dimension of student character. Many environmental programs, however, emphasize activity over the management required to make their outcomes endure. This study examines the *Adiwiyata* program through the lens of strategic management, aiming to analyze students' environmental care character, to examine how the program is implemented, and to evaluate how its strategic management contributes to strengthening that character. A qualitative descriptive design was employed, with the researcher serving as the primary instrument. Data were gathered through observation, in-depth interviews, and documentation, and were subsequently analyzed using the interactive analysis model and validated through triangulation across sources, techniques, and time. The findings demonstrate that environmental care develops as a layered and gradual achievement, sustained jointly by habituation, peer influence, and the discipline of school regulation, and maturing unevenly across grade levels. The program proved strong in formulation and implementation, although it remained constrained by workload, space, and funding. The principal implication is that policy, curriculum, participatory activity, and infrastructure function as an interdependent chain, which provides educational managers with a diagnostic instrument for identifying where character formation breaks down rather than a checklist of activities to complete.

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INTRODUCTION

Environmental degradation, and the accumulation of plastic waste in particular, has grown into one of the most pressing challenges of the present era. Rising consumption that is not matched by adequate waste management has driven a cascade of harms that includes flooding, water scarcity, and the spread of disease, and the burden of these harms falls on communities least equipped to absorb them (Roy, 2025; Singh et al., 2023). Within this larger crisis, education occupies a strategic position, because schools are among the few institutions capable of shaping behavior at the formative stage when habits are still being set (Avcı et al., 2025; Mónus, 2022). Schools function as agents of change, and they can cultivate ecological awareness and sustainable conduct in ways that reach beyond the classroom into households and neighborhoods (Harada et al., 2023; Klein et al., 2021). For this reason, the integration of environmental values into the educational system is not a peripheral concern but a



necessary condition for forming the kind of character, and especially the environmental care, that a sustainable future requires.

Realizing that potential, however, depends on how schools are managed, and this is where strategic management becomes relevant. Strategic management is a systematic process through which an organization formulates, implements, and evaluates decisions in order to achieve its long-term goals effectively (Christodoulou et al., 2022; Lesnikova et al., 2023). In education its value lies not in administrative efficiency alone but in the capacity it gives a school to respond deliberately to environmental challenges and to the expectations of its stakeholders. Schools exert a significant influence on the cognitive, affective, and behavioral development of their students, and that influence extends to how students come to understand environmental sustainability (Craig & Karabas, 2025; Janmaimool & Chontanawat, 2021). A school environment that is managed with intention, through structured programs and consistent practice rather than sporadic activity, can move students toward environmentally responsible behavior and sustain that behavior over time, which is precisely the outcome that ad hoc efforts so often fail to secure (Donaire et al., 2021; Olsson, 2022).

In Indonesia, the principal policy instrument for advancing environmental education is the *Adiwiyata* program, regulated under Ministry of Environment Regulation No. 5 of 2013. The program seeks to create environmentally friendly schools by integrating environmental values across four domains, namely school policy, curriculum, participatory activities, and the management of infrastructure. (Stambekova et al., 2021) Its pedagogical logic rests on habituation and role modeling, two approaches widely regarded as effective in character education because they work through repeated practice rather than instruction alone. Through this design, the program aims to produce graduates who are not only academically capable but also environmentally responsible, so that ecological awareness becomes part of how students live rather than something they merely know. The *Adiwiyata* framework therefore embodies an ambition that is at once educational and environmental, treating the cultivation of character as the route to lasting ecological behavior (Kaewhao & Sutthiphapa, 2022; Rickinson & McKenzie, 2021).

The empirical record, however, suggests that this ambition is unevenly realized. National data from the Indonesian Waste Management Information System (SIPSN) indicate that total waste generation exceeded thirty-eight million tons in 2023, a figure that points to environmental awareness remaining relatively low across society, students included (Ardi et al., 2024). Within schools, the difficulty is compounded by limited supervision, large student populations, and the dual responsibilities that stretch teachers between instruction and administration, all of which impede the consistent delivery of environmental programs (Acton, 2025; Tran Ho et al., 2022). Preliminary observation at MI An-Nur Cirebon reflected the same tension, since students' compliance with environmental rules, such as bringing reusable food containers and reducing plastic use, was still inconsistent despite the program's presence. The gap between the program's design and its lived effect is thus not merely theoretical but visible in daily conduct, which makes it a problem worth examining closely.

Prior research has begun to map this terrain, yet it leaves an important question unanswered. (Sari et al., 2021; Sunarto, 2023) found that even where the *Adiwiyata* program was implemented well, it had not significantly strengthened students' environmental care character, a shortfall they attributed to limitations in learning methods and infrastructure support. Other studies converge on a related point, namely that environmental education programs tend to concentrate on activities rather than on the strategic management that would make those activities cohere and endure, which leaves their outcomes fragile. What emerges across this literature is a recurring emphasis on implementation as event rather than as managed process, and a corresponding silence on how planning, execution, and evaluation together bear on the formation of character. This silence is the opening the present study addresses.

A clear research gap therefore concerns the integration of a strategic management perspective into the study of the *Adiwiyata* program. Most existing work emphasizes implementation without analyzing in depth how strategic planning, execution, and evaluation contribute to character development, and it is this analytic move that the present study undertakes. By examining the program through the lens of strategic management, the study offers a novel reading of why the program succeeds or falls short in enhancing students' environmental care character. Accordingly, it pursues three aims, namely to analyze students' environmental care character at MI An-Nur Cirebon, to examine the implementation of the *Adiwiyata* program, and to evaluate how the strategic management of the program contributes to strengthening students' environmental awareness. In doing so, the study is intended to offer both a theoretical contribution to educational management and practical guidance for schools seeking to build environmental education programs that are sustainable rather than episodic.

RESEARCH METHOD

This study employed a qualitative approach with a descriptive design, chosen to explore and interpret the implementation of the *Adiwiyata* program and its contribution to the formation of students' environmental care character. A qualitative approach interprets phenomena through the perspectives and lived experiences of participants and yields descriptive data in the form of words and narratives rather than numbers (Houston et al., 2021; McDonough & Stephenson, 2024). The research was conducted at Madrasah Ibtidaiyah (MI) An-Nur in Cirebon City, Indonesia, a school selected because it holds *Adiwiyata* status and has integrated environmental values into its policies, curriculum, and daily routines, which makes it an information-rich site for the questions pursued here. Consistent with qualitative logic, the researcher served as the primary instrument, engaging directly with participants and the setting so that observing, interacting, and interpreting in situ allowed the data to be read in their full context rather than at a remove.

To preserve confidentiality and support the analysis, informants were selected purposively and assigned codes, as set out in **Table 1**.

Table 1. Research Informants and Their Codes

No.	Informant	Code	Basis for Selection
1	School principal	KS	Holds strategic authority over program policy and direction
2	<i>Adiwiyata</i> program coordinator	KA	Manages the planning, execution, and evaluation of the program
3	Teachers	GR	Integrate environmental values into teaching and daily supervision
4	Students of grade VI (classes A and B)	SW	Direct participants whose conduct reflects the program's outcomes

Source: Processed from the research data, 2024.

Table 1 clarifies that the informant structure was stratified by role, so that the four codes together span the full arc of the program from policy to practice. The principal and coordinator account for the strategic layer, teachers for the mediating layer of daily implementation, and students for the outcome layer where the program either takes hold or does not. This stratification is what makes triangulation across sources meaningful, since a claim can be checked against informants positioned differently in relation to the same program rather than against several voices occupying the same vantage point.

Data were collected through three techniques, namely observation, in-depth interviews, and documentation, deliberately combined so that each could compensate for the limits of the others. Observation was directed at students' behavior and at the school's environmental practices, capturing conduct as it actually occurred rather than as it was

reported. In-depth interviews were conducted with informants selected purposively for their direct involvement in the program, namely the school principal, the *Adiwiyata* coordinator, teachers, and grade VI students, to obtain detailed accounts of implementation and the challenges encountered. Documentation, including photographs, school reports, and official records, corroborated and validated what observation and interview had yielded. The three techniques were chosen for their complementary strengths, since observation registers conduct informants may not mention, interviews recover the meanings behind that conduct, and documentation anchors both in a durable record that supports triangulation.

The data were analyzed using the interactive analysis model, which proceeds through three stages of data reduction, data display, and conclusion drawing. In the reduction stage, the raw material was selected and simplified so that information relevant to the research questions was brought to the fore and extraneous detail set aside. In the display stage, the reduced data were organized systematically, through narrative and tabulation, so that patterns became legible and interpretation tractable. In the final stage, conclusions were drawn from the patterns and relationships identified, then revisited against the evidence as analysis proceeded, so that the three stages cycled back upon one another rather than running in strict sequence. To secure trustworthiness, the study applied four criteria of credibility, transferability, dependability, and confirmability, with credibility established through triangulation of sources, techniques, and time so that findings rested on convergent rather than singular evidence.

RESULT AND DISCUSSION

Result

The findings reported here rest on the triangulation of three data sources, namely in-depth interviews, direct field observation, and documentation. For every cluster of findings, the three are read against one another so that no claim depends on a single line of evidence. Where the accounts of informants, the conduct observed in the field, and the records held by the school converge, the finding is treated as trustworthy, and where they diverge the divergence is reported rather than concealed. The study was carried out at MI An-Nur Cirebon, hereafter referred to as the school. Informants are identified by code, namely the principal (KS), the *Adiwiyata* coordinator (KA), teachers (GR), and students (SW).

Students' Environmental Care Character

Character education rests on habituation, the patient work of instilling values through repeated action until they harden into disposition. Environmental care, understood this way, is not knowledge that students recite but conduct visible in what they do each day. The findings indicate that students at the school have developed a relatively strong environmental care character, expressed through three qualities of awareness, personal commitment, and responsibility.

Interview data supplied the first strand of evidence. Asked how student conduct had changed, the *Adiwiyata* coordinator located the shift in behavior that no longer needed prompting. "The children now pick up litter on their own. They no longer wait to be told. For me that is the clearest sign that the habit has taken root." (KA, 2024) A class teacher gave a convergent account, framing the change as a routine that had become self-sustaining. "Cleaning the classroom used to be something I had to remind them about every morning. Now they do it themselves, and they remind each other." (GR, 2024) The students' own words located the same disposition in their daily choices. "I bring my own lunchbox and bottle so I do not add to the plastic waste. It already feels normal now." (SW, 2024)

Field observation corroborated these accounts. During the observation period students were seen picking up litter unbidden, taking part in classroom cleaning routines, and switching off electrical devices once they were no longer needed. The behavior persisted when no teacher was present, which indicates that the values had moved from instruction

into routine. Observation also surfaced a qualification absent from the interviews, namely that students in the lowest grades acted less consistently and still depended on guidance. Documentation completed the triangulation, since activity logs and photographic records showed sustained participation in cleaning schedules and conservation activities across the same period. The three sources converge on a single conclusion: environmental awareness has been embedded into daily conduct, with the qualification that consistency tracks developmental readiness. **Table 1** sets out the indicators of this character, the empirical findings for each, and their interpretation.

Table 2. Indicators of Students' Environmental Care Character

No.	Indicator	Empirical Findings	Interpretation
1	Environmental awareness	Students pick up litter, perform classroom cleaning routines, and turn off electrical devices after use	Indicates the success of habituation in embedding environmental awareness into daily conduct
2	Personal commitment	Students bring reusable food containers, queue in an orderly manner, and encourage peers to maintain cleanliness	Reflects the internalization of environmental values and the role of social influence
3	Environmental responsibility	Students comply with school regulations on plastic reduction and cleanliness, with sanctions applied for violations	Demonstrates how rules and discipline shape responsible environmental behavior
4	Variation across grade levels	Students in grades 1 to 2 show lower consistency in behavior	Indicates that character formation is shaped by age and cognitive maturity

Source: Processed from interview, field observation, and documentation data, 2024.

Table 2 makes one point unmistakable: environmental character is not a single trait but a layered achievement, and the layers do not mature at the same rate. Awareness and commitment appear robust across the upper grades, yet the final row carries the most diagnostic weight. The unevenness in the lowest grades is not a defect in the program but evidence that habituation tracks developmental readiness, which means the school cannot treat environmental character as a uniform target reached on a fixed timetable. It must instead be cultivated differently for different ages. Beyond awareness, personal commitment concerns the firmness with which students hold to responsible conduct, and that commitment extends outward when students encourage their peers, pointing to a social learning process in which behavior spreads through observation and interaction. Environmental responsibility, in turn, ties conduct to compliance with school regulations, where the enforcement of rules and the application of sanctions show that character formation here is driven by more than internal motivation. The interaction of habituation and regulation, rather than either alone, accounts for the consistency observed in the upper grades.

Implementation of the *Adiwiyata* Program

Strategic management determines whether an educational program endures or fades, because it disciplines a school's ambitions into a sequence that can be planned, executed, and judged. Its three components of formulation, implementation, and evaluation give an institution a structured and measurable path toward its goals. The findings show that the school has put all three to work, though their effectiveness varies, and here again the evidence was assembled by triangulating interviews, observation, and documentation.

Interview data spoke most directly to the formulation and evaluation stages. The principal described how environmental values were deliberately fused with religious teaching. "We begin from the conviction that cleanliness is part of faith. Once the children see caring for the environment as part of their religion, it is no longer a rule imposed from outside." (KS, 2024) The coordinator connected this vision to the evaluation that keeps the program

accountable. "We review the program in our teacher meetings every year, and the Environmental Agency assesses us from outside. The two together keep us honest." (KA, 2024)

Field observation captured the implementation stage as it unfolded. During visits, students were seen sorting waste, producing eco-enzyme, assembling ecobricks, and taking part in energy-saving routines, while reusable containers and the 10R principles were visibly in use. Observation confirmed that learning proceeded through doing rather than telling, and that activities advanced in stages, beginning with awareness before moving to full practice. Documentation supplied the third strand, since program reports, meeting minutes, and the external evaluation conducted by the local Environmental Agency recorded both the activities undertaken and the accountability mechanisms surrounding them. The three sources converge on a consistent picture, namely a structured strategic-management process whose front end of formulation and implementation is well developed and whose evaluation is strengthened by external scrutiny. **Table 3** sets out each strategic aspect, the empirical findings for it, and their interpretation.

Table 3. Strategic Management Implementation of the *Adimiyata* Program

No.	Strategic Aspect	Empirical Findings	Interpretation
1	Formulating	Integration of environmental values with religious principles ("cleanliness is part of faith"), focused on environmental literacy, behavior change, and support systems	Reflects alignment between institutional vision and environmental education values
2	Implementing	Activities organized around water, energy, and waste conservation, including recycling, eco-enzyme production, ecobricks, and the 10R principles	Indicates a comprehensive and practical application of environmental education
3	Evaluating	Annual reviews and routine teacher meetings, with external evaluation by the Environmental Agency (DLH)	Shows mechanisms for continuous improvement and accountability
4	Supporting factors	Strong parental support, alumni involvement (FOKUS), and collaboration with external organizations	Demonstrates the importance of stakeholder engagement in the program's success
5	Inhibiting factors	Variability in student behavior, teacher workload, and limited infrastructure and funding	Highlights the structural and behavioral challenges that constrain effectiveness

Source: Processed from interview, field observation, and documentation data, 2024.

Table 3 reveals a program that is strong at the front end and vulnerable at the back. Formulation and implementation are well developed, and the dual evaluation system lends the program a credibility that purely internal review could not. The decisive rows, however, are the last two. The supporting factors are largely relational, resting on parents, alumni, and external partners, while the inhibiting factors are largely structural, rooted in workload, space, and funding. This asymmetry matters, because it shows that the program's momentum depends on goodwill the school cultivates, whereas its ceiling is set by material constraints the school cannot easily lift on its own. Differences among students, the competing administrative demands placed on teachers, and the limits of land and funding together demonstrate that effectiveness is shaped as much by structural conditions as by internal strategy.

The Impact of the Program Strategy on Students' Environmental Care Character

Strategy, in organizational terms, is the comprehensive plan that orients decisions and actions toward long-term ends. In schools it becomes the instrument that ensures a program is not merely implemented but actually produces measurable effects. The findings indicate that the strategic implementation of the program has contributed substantially to the

formation of students' environmental care character, and once more the conclusion rests on the convergence of three data sources.

Interview data identified the mechanisms informants held responsible for the change. A teacher emphasized the disciplining force of policy, while a student located the change in everyday habit. "The school rules and the obligation to bring our own containers make the children think before they reach for plastic. The policy does much of the teaching." (GR, 2024) "From sorting the waste myself I finally understood which things can still be used again. I do it at home now too." (SW, 2024) Field observation tested these claims against practice, confirming that students enacted the 7K principles, used reusable containers, took part in water, energy, and waste conservation, and made use of waste-sorting and clean water facilities. Documentation then anchored the account in record, since lesson plans incorporating environmental themes, activity reports, and infrastructure inventories were all present in the school's files. Where the three sources meet, the finding holds: the program's components operate not in isolation but as a chain, and that chain is what produces behavioral change. **Table 4** presents the strategic components, the empirical findings for each, and their impact on students' character.

Table 4. Strategic Outcomes of the *Adiwiyata* Program

Strategic Component	Empirical Findings	Interpretation
Environmentally oriented policy	Integration of environmental values into the vision, mission, goals, and school rules (7K principles, mandatory reusable containers)	Strengthens students' awareness and discipline in environmental practice
Environment-based curriculum	Integration of environmental education into lesson plans and extracurricular activities such as arts and scouting	Deepens students' knowledge and cognitive understanding of environmental issues
Participatory activities	Conservation programs for water, energy, and waste, together with the 10R principles and routine environmental actions	Builds students' habits and sustains active engagement in environmental care
Eco-friendly infrastructure	Provision of waste-sorting facilities, clean water access, and environmentally friendly infrastructure	Supports sustainable behavior by creating an enabling environment

Source: Processed from interview, field observation, and documentation data, 2024.

Table 4 should be read not as four separate inputs but as a single chain. Policy declares the intention, curriculum supplies the understanding, participatory activity converts understanding into habit, and infrastructure makes the habit easy to sustain. The force of the program lies in the alignment among these components rather than in any one of them, and the table's value is that it exposes where a break in the chain would do the most damage. Weak infrastructure, for instance, would leave even a well-taught and well-intentioned student without the means to act, which is precisely the vulnerability the school's funding and space constraints expose. The relationship among the four components is represented in **Figure 1**.

Figure 1 presents the four components not as a list but as a sequence of entailment in which each layer makes the next possible. Read from top to bottom, the model asserts that environmental character is the terminal outcome of a chain rather than the product of any single intervention, which reframes the four components from parallel program features into interdependent links. The diagnostic value of the figure lies in this directionality, since it shows that a weakness at any upper layer propagates downward: a curriculum disconnected from policy, or activities unsupported by infrastructure, would arrest the chain before it reached the student. The model therefore advances a claim rather than merely organizing the findings, namely that the formation of environmental care character is a structural achievement contingent on the coherence of the whole system.

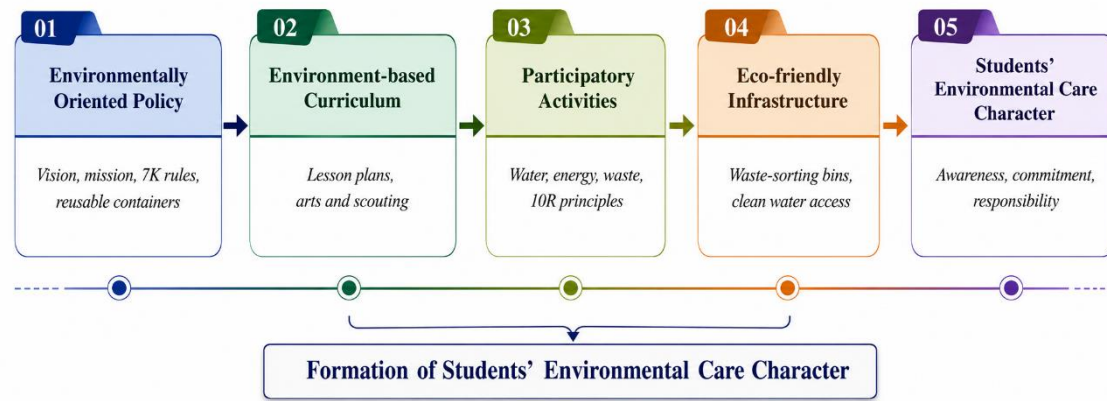


Figure 1. Integrative Chain Model of the *Adiwiyata* Program

Source: Authors' elaboration based on the field findings, 2024.

The evidence ultimately points beyond cognitive gain to behavioral transformation. Students do not merely learn about environmental issues; they form habits and assume responsibilities that express genuine environmental care, and that internalization of values into daily practice is the surest sign that character education has succeeded. Seen through the lens of strategic management, the program's effectiveness is the product of coordinated planning, implementation, and evaluation. Its durability, however, is not guaranteed. Sustaining it will demand greater consistency, stronger teacher involvement, better infrastructure, and continual adaptation to new challenges, so that the *Adiwiyata* program functions, when carried out comprehensively and consistently, as a credible model for embedding sustainability in educational practice.

Discussion

The findings indicate that environmental care character at the school is best understood as a layered achievement rather than a single trait, and that its layers do not mature at a uniform rate. Awareness, personal commitment, and responsibility appeared robust in the upper grades, yet consistency thinned in the lowest grades, where younger students still depended on guidance (Barrón et al., 2022). This unevenness should not be read as a failure of the program but as evidence of how habituation actually works, since it can take hold only as quickly as a child's cognitive and emotional maturity allows. The pattern qualifies the optimism of earlier accounts and resonates with (Abu et al., 2023; Hidayah et al., 2023), who found that a well-implemented *Adiwiyata* program did not automatically strengthen students' character. Read together, these results suggest that character formation is not a target reached on a fixed timetable but a graduated process that must be calibrated to the age and capacity of the learner.

Why this character holds where it does becomes clearer once the mechanisms behind it are examined, for they prove to be social and regulatory as much as individual. Students did not merely comply with environmental rules in isolation; they encouraged their peers and corrected one another, which points to a social learning process in which conduct spreads through observation and interaction (Chanyau, 2025). Alongside this, the enforcement of school regulations, including sanctions for violations, supplied an external scaffold that motivation alone would not have provided (Rentzios et al., 2025; Yates & Patall, 2021). The consistency observed in the upper grades is therefore the joint product of habituation reinforced by peer culture and discipline structured by policy. This reading extends the habituation-and-role-modeling logic on which the *Adiwiyata* framework rests, since it shows that role modeling operates laterally among peers and not only vertically from teacher to student, a nuance that the framework's original formulation leaves implicit (Ambawono et al., 2025).

When attention turns from students to the program that shapes them, the analysis reveals a clear asymmetry between a strong front end and a vulnerable back end. Formulation and implementation were well developed, and the integration of environmental values with religious teaching, expressed in the conviction that cleanliness is part of faith, gave the program a contextual anchor that made it part of the school's identity rather than an external imposition (Wijsen, 2025). Evaluation, too, was strengthened by pairing internal review with external assessment from the Environmental Agency. Yet the program's momentum rested largely on relational supports such as parents, alumni, and partner organizations, while its ceiling was set by structural constraints of workload, space, and funding. This asymmetry confirms a broader pattern in the literature, namely that environmental programs frequently privilege activity over the strategic management required to make activity endure. (Chehimi & Naro, 2024)

That distinction between activity and management is sharpened once the program's components are read as a chain rather than a list. Policy declares intention, curriculum supplies understanding, participatory activity converts understanding into habit, and infrastructure makes the habit easy to sustain, so that the program's force derives from the alignment among these elements rather than from any one of them. This integrative reading helps explain why isolated interventions so often disappoint, since a curriculum disconnected from policy, or activities unsupported by infrastructure, breaks the chain before it reaches the student. It also locates precisely where the school's constraints bite hardest, because weak infrastructure leaves even a well-taught and well-intentioned student without the means to act. The four *Adiwiyata* domains are thus better conceived not as parallel features to be checked off but as interdependent links whose coherence determines the outcome.

These insights carry weight, but their boundaries should be stated plainly. The study was conducted in a single madrasah whose religious ethos was integral to how environmental values were framed, which means the findings transfer most readily to schools with a comparable cultural and institutional character and less directly to secular or larger settings. The reliance on observation, interview, and documentation, while triangulated for trustworthiness, captures conduct within a bounded period rather than across the longer span over which character consolidates. Acknowledging these limits is not a retreat from the findings but a condition for using them well, since it marks the difference between a model that travels intact and one that must be adapted, and it points to the longitudinal and multi-site work needed to test how far the chain holds under different conditions.

Within these boundaries, the study makes a specific contribution to educational management. Where most prior work treats the *Adiwiyata* program as a sequence of activities to be implemented, this study reframes it as an object of strategic management whose effectiveness depends on the coherence of formulation, implementation, and evaluation working as one system. Its central contribution is the chain model, which gives school managers a diagnostic rather than merely descriptive tool: by tracing character outcomes back through infrastructure, activity, curriculum, and policy, leaders can identify which link has broken instead of responding to weak results with undirected effort. This converts environmental education from a checklist of programs into a managed process, and it offers educational management a transferable principle, namely that the formation of student character is a structural achievement contingent on the alignment of the whole system rather than the strength of any single intervention. In doing so, the study connects the strategic management tradition to character education in a way that prior research, focused on implementation alone, had left unexplored.

CONCLUSION

This study concludes that the cultivation of students' environmental care character through the *Adiwiyata* program at *Madrasah Ibtidaiyah* (MI) An-Nur Cirebon operates effectively not as a checklist of isolated activities, but as an Integrative Chain Model. The

strategic management of the program demonstrates strength in formulation and implementation, particularly through the contextual integration of environmental values with Islamic principles ("cleanliness is part of faith"). The findings reveal that environmental character is a layered and gradual achievement that tracks developmental readiness, maturing more consistently in the upper grades through the reinforcement of peer culture and school regulations. However, the program's long-term sustainability faces structural ceilings, specifically teacher workload, limited space, and funding constraints. The primary theoretical and practical implication for educational managers is that policy, curriculum, participatory activities, and eco-friendly infrastructure function as interdependent links; a breakdown in any single link diminishes the overall outcome of character formation. This study is limited by its single-site qualitative design within an Islamic primary school context. Future research should explore the durability of this integrative chain through longitudinal designs or multi-site comparative studies across diverse secular and larger educational settings.

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