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EXAMINING THE MEDIATING ROLE OF *TAWĀḌUʿ* IN REDUCING ECOLOGICAL POVERTY THROUGH ECONOMIC BEHAVIOR

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Abstract

This study examines the mediating role of *tawāḍuʿ* in reducing ecological poverty through economic behavior. It integrates the concepts of deep ecology, environmental justice, and *khilāfah* to explain the relationships among environmental injustice, natural resource exploitation, economic greed, sustainable environmental policy, and ecological poverty. Using a quantitative approach with SEM-PLS, data were collected from 245 Muslim middle-class respondents in South Sulawesi, Indonesia. The findings show that environmental injustice increases resource exploitation, which intensifies economic greed and leads to less responsible economic behavior while weakening *tawāḍuʿ*. In contrast, sustainable environmental policy enhances *tawāḍuʿ*, fostering ethical awareness and promoting more responsible economic behavior. *Tawāḍuʿ* significantly contributes to reducing ecological poverty and serves as a key mediator linking structural and behavioral factors to socio-ecological outcomes. The results indicate that ecological issues are not merely technical or economic but are also shaped by moral-spiritual dimensions that influence economic behavior. This study contributes by proposing an integrative ecological–structural–spiritual model and empirically validating the role of *tawāḍuʿ* within Islamic environmental ethics. Practically, it highlights the importance of integrating moral-spiritual values into sustainable environmental governance.

Keywords: *Tawāḍuʿ*; Ecological Poverty; Economic Behavior

INTRODUCTION

Tawāḍuʿ functions as an ethical mechanism in mitigating ecological poverty caused by environmental degradation through three key dimensions: restraining exploitative consumption, strengthening ecological solidarity, and fostering awareness of human responsibility toward nature. By encouraging self-restraint in resource use, *tawāḍuʿ* reduces excessive consumption that contributes to environmental damage (Hendy & Montargot, 2025) and helps maintain ecosystem productivity for communities dependent on natural resources (Vaupotič et al., 2024). It also promotes social trust and collective environmental action, which strengthens pro-environmental behavior and ecosystem stability (Irawan et al., 2022). Furthermore, *tawāḍuʿ* cultivates an ethical awareness of humans as stewards (*khalifah*) responsible for environmental protection, a principle reflected in sustainability initiatives such as water conservation, waste management, and energy efficiency in religious institutions

(Rahman et al., 2024). Overall, the internalization of *tawāḍuʿ* supports ecological responsibility and contributes to reducing the risk of ecological poverty.

Research on the role of *tawāḍuʿ* in addressing ecological poverty remains limited, though related studies highlight three key areas. (Denault et al., 2024) show that humility and simple living encourage pro-environmental behavior and Lisboa et al. (2024) reduce exploitative consumption. Studies by Wu et al. (2025) emphasize that humility strengthens community trust, cooperation, and collective environmental governance. Meanwhile, (Bsoul et al., 2022) and (Alhinai & Ringer, 2025) highlight that Islamic environmental ethics through concepts such as *amanah* and stewardship promote ecological responsibility, although their empirical application remains limited.

Previous studies have largely focused on the role of humility in reducing exploitative consumption, strengthening social solidarity and collective environmental action, and promoting ecological spirituality and human responsibility toward nature. However, the mediating role of *tawāḍuʿ* in mitigating ecological poverty resulting from environmental degradation has not been systematically examined in the literature. This study therefore addresses this gap by investigating how *tawāḍuʿ* functions as a mediating variable in reducing ecological poverty within Muslim middle-class communities. By introducing this perspective, the research offers an initial analytical framework that contributes to the development of Islamic environmental ethics and expands the empirical discussion on the relationship between moral values and environmental sustainability.

This study employs three main theoretical frameworks deep ecology, environmental justice, and the *khilāfah* concept in Islamic ethics to examine the mediating role of *tawāḍuʿ* in reducing ecological poverty caused by environmental degradation. Deep Ecology, proposed by Arne Naess, emphasizes that humans are part of an ecological network where all living beings possess intrinsic value (Naess, 2019), supporting *tawāḍuʿ* as ecological humility that restrains exploitative consumption. Environmental Justice explains the unequal distribution of environmental harm affecting vulnerable communities (Menton et al., 2020), where *tawāḍuʿ* encourages more just and responsible environmental decision-making. Meanwhile, the *Khilāfah* concept frames humans as stewards responsible for maintaining ecological balance (Surana et al., n.d.). By integrating these perspectives, the study provides a holistic framework for understanding how *tawāḍuʿ* mediates the relationship between environmental governance and ecological poverty.

This study aims to address a gap in the literature concerning the role of *tawāḍuʿ* in reducing ecological poverty resulting from environmental degradation. It specifically examines how *tawāḍuʿ* mediates the relationships between sustainable environmental policies, environmental injustice, natural resource exploitation, and economic greed in influencing ecological poverty. The study also analyzes how sustainable environmental policies and economic greed shape the formation of *tawāḍuʿ*, and how environmental injustice drives resource exploitation and economic greed. Through this framework, the research seeks to explain the direct and indirect structural relationships among these variables within Muslim middle-class communities in South Sulawesi.

METHODS

This study employed a quantitative approach to examine the relationships among environmental injustice, natural resource exploitation, economic greed, sustainable environmental policy, *tawāḍuʿ*, and ecological poverty. The study particularly investigated the mediating role of tawāḍuʿ in influencing ecological poverty through economic behavior.

The research instrument consisted of a structured questionnaire with two sections: respondents' socio-demographic information and measurement items for the research variables. A total of 24 indicators representing six constructs were measured using a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5).

Operationally, *tawāḍuʿ* was defined as an ethical-spiritual attitude reflecting humility, self-restraint, and moral responsibility. Sustainable environmental policy referred to perceptions of environmentally sustainable governance. Ecological poverty represented socio-economic vulnerability caused by environmental degradation. Economic greed reflected excessive material-oriented behavior, while natural resource exploitation referred to excessive and unsustainable resource utilization. Environmental injustice represented unequal environmental burdens and limited ecological access.

Data were collected from 245 Muslim middle-class respondents in South Sulawesi, Indonesia, using convenience sampling through online questionnaires distributed via Google Forms and WhatsApp networks. The data were analyzed using Partial Least Squares Structural Equation Modeling (SEM-PLS) with SmartPLS version 4.1.1.7. The analysis involved evaluating the measurement model through validity and reliability testing, including factor loadings, composite reliability, average variance extracted (AVE), discriminant validity, and Cronbach's alpha. Subsequently, the structural model was assessed using path coefficients, p-values, and R-square values to examine the significance and explanatory power of the proposed relationships.

To ensure the robustness of the measurement model, validity and reliability tests were rigorously conducted. In addition, respondent anonymity and structured questionnaire design were applied to minimize potential common method bias.

In this framework, *tawāḍuʿ* is positioned as an ethical-spiritual value promoting humility, ecological awareness, and responsible economic behavior. Sustainable environmental policy is expected to strengthen *tawāḍuʿ*, whereas environmental injustice is assumed to increase natural resource exploitation and economic greed.

Accordingly, the study proposed the following hypotheses:

H1) *Tawāḍuʿ* significantly influences ecological poverty;
H2) Sustainable environmental policy significantly influences tawāḍu';
H3) Economic greed significantly influences *tawāḍuʿ*;
H4) Natural resource exploitation significantly influences economic greed;
H5) Environmental injustice significantly influences natural resource exploitation;
H6a) *Tawāḍuʿ* mediates the relationship between sustainable environmental policy and ecological poverty;
H6b) *Tawāḍuʿ* mediates the relationship between economic greed and ecological poverty;

H7) Economic greed mediates the relationship between natural resource exploitation and *tawāḍu'*; and

H8) Natural resource exploitation mediates the relationship between environmental injustice and economic greed.

Figure 1 presents the proposed research model illustrating the structural relationships among the research variables.

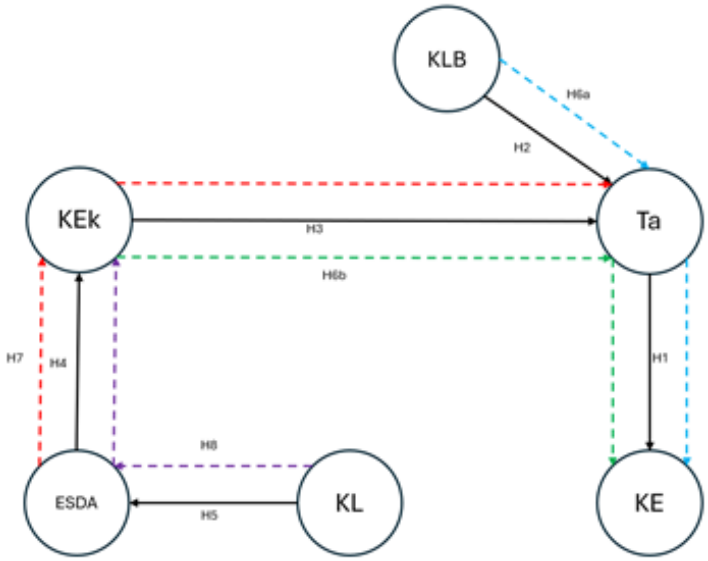

Figure 1. Proposed Research Model

RESEARCH RESULTS AND DISCUSSION

Results

The demographic characteristics of the 245 respondents indicate that the majority were female (64.500 percent), with a relatively balanced proportion of married and unmarried individuals. Most respondents were within the productive age range of 20 to 35 years (78.400 percent) and predominantly held a bachelor's degree (57.600 percent), followed by those with secondary education. In terms of occupation, respondents were largely engaged in entrepreneurship, public service, and private sector employment, although a substantial proportion fell into other occupational categories. The majority reported a monthly income below IDR 5 million (63.300 percent), suggesting a moderate level of economic capacity. Overall, these characteristics reflect a predominantly educated, economically active Muslim middle-class population within the local socio-economic context.

Table 1. Demographic Profile of the Respondents

Criteria/Category	Frequency	Percentage (percent)
Gender		
Male	87	35,5
Female	158	64,5
Marital status		
Married	121	50,6

Single	124	49,4
Age		
18 to 25 years	95	38,8
26 to 35 years	97	39,6
36 to 45 years	45	18,4
46 to 55 years	6	2,4
Above 55 years	2	0,8
Education		
Primary school (SD/MI)	1	0,4
Junior high school (SMP/MTs)	5	2
Senior high school (SMA)	66	26,9
Diploma (D.I/D.II/D.III/D.IV)	16	6,5
Bachelor's degree (S1)	141	57,6
Master's degree (S2)	13	5,3
Doctoral degree (S3)	3	1,2
Others	0	0
Occupation		
Farmer/Planter	11	4,6
Civil servant	45	18,4
Private employee	30	12,2
Fisherman/Fishery worker	3	1,2
Shepherd/Livestock breeder	11	4,5
Entrepreneur/Self-employed	53	21,6
Income/month		
Under IDR 5 million	160	63,3
IDR 5 million to IDR 10 million	75	30,6
Above IDR 10 million to IDR 15 million	7	2,9
Above IDR 15 million	3	1,2

Source: Primary data processed in 2026.

Table 2 shows that all constructs in the model meet the criteria for reliability and convergent validity, indicating that the measurement model is adequate for further analysis. The Cronbach's Alpha values for all variables exceed the threshold of 0.700, demonstrating good internal consistency among the measurement items. This is supported by the Composite Reliability values (rho_a and rho_c), which are also above 0.700, confirming the reliability of the constructs. In addition, the Average Variance Extracted (AVE) values range from 0.618 to 0.766, all above the minimum threshold of 0.500, indicating that each construct explains more than half of the variance of its indicators and thus meets the requirement for convergent validity. Overall, these results confirm that all constructs are reliable and valid, providing a sufficient basis for further structural model.

Table 2. Validity and Reliability Test

Construct	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Natural Resource Exploitation (ESDA)	0.898	0.898	0.929	0.766
Ecological Poverty (KE)	0.842	0.864	0.894	0.678
Economic Greed (KEk)	0.845	0.860	0.897	0.686
Environmental Injustice (KL)	0.802	0.823	0.882	0.714
Sustainable Environmental Policy (KLB)	0.797	0.808	0.866	0.618
***Tawāḍu*ʿ (Ta)**	0.815	0.820	0.878	0.642

Source: Primary data (questionnaire) processed using SmartPLS 4.1.1.7, 2026.

Table 3 presents the outer loading values for each indicator associated with their respective constructs, demonstrating the convergent validity of the measurement model. Overall, all indicators exhibit loading values above the recommended threshold of 0.70, indicating that they contribute significantly to their respective constructs and are suitable for inclusion in the model. For instance, ESDA2 shows a high loading value of 0.897 for the Natural Resource Exploitation construct, while KE3 (0.873) and KEk3 (0.896) also reflect strong contributions to their respective variables. In the Environmental Injustice construct, KL2 (0.868) and KL4 (0.866) display the highest loadings, whereas one indicator, KL3, was excluded because it did not meet the minimum threshold requirement. These findings suggest that the retained indicators have strong correlations with their respective constructs and are capable of accurately capturing the intended latent variables. Overall, the results confirm that the measurement items are reliable and adequately represent their constructs within the PLS measurement model.

Table 3. Outer Loadings

Indicators	Natural Resource Exploitation (ESDA)	Ecological Poverty (KE)	Economic Greed (KEk)	Environmental Injustice (KL	Sustainable Environmental Policy (KLB)	*Tawāḍu*ʿ (Ta)
ESDA1	0.865					
ESDA2	0.897					
ESDA3	0.875					
ESDA4	0.865					
KE1		0.790				
KE2		0.861				
KE3		0.873				
KE4		0.765				
KEk1			0.728			
KEk2			0.800			
KEk3			0.896			
KEk4			0.878			

KL1	0.801				
KL2	0.868				
KL4	0.866				
KLB1		0.780			
KLB2		0.819			
KLB3		0.754			
KLB4		0.789			
Ta1			0.767		
Ta2			0.849		
Ta3			0.792		
Ta4			0.797		

Source: Primary data (questionnaire) processed using SmartPLS 4.1.1.7, 2026.

Table 4 confirms that all constructs meet the Fornell–Larcker criterion for discriminant validity, indicating that each construct is empirically distinct from the others within the model. The square root of the Average Variance Extracted (AVE) for each construct is shown in the diagonal values, and these values are consistently higher than the correlations with other constructs, suggesting that each construct is more strongly associated with its own indicators than with those of other variables. For instance, ESDA shows a root AVE value of 0.875, while KE and KEk have values of 0.823 and 0.828, respectively, all of which exceed their inter-construct correlations despite the presence of relatively strong relationships among variables. Similarly, KL, KLB, and Ta also meet the required thresholds, with diagonal values of 0.845, 0.786, and 0.802, respectively, further demonstrating that each construct has stronger internal consistency than external association. These findings indicate that the constructs are well differentiated and do not exhibit problematic overlap, thereby confirming that discriminant validity is well established across all constructs in the model.

Table 4. Fornell-Larcker Criterion

Construct	ESDA	KE	KEk	KL	KLB	Ta
Natural Resource Exploitation	0.875					
Ecological Poverty	0.755	0.823				
Economic Greed	0.818	0.747	0.828			
Environmental Injustice	0.559	0.557	0.545	0.845		
Sustainable Environmental Policy	0.492	0.534	0.431	0.500	0.786	
***Tawāḍu*ʿ**	0.120	0.179	0.066	0.311	0.448	0.802

Source: Primary data (questionnaire) processed using SmartPLS 4.1.1.7, 2026.

The measurement model demonstrated satisfactory reliability and validity. All Cronbach's alpha and composite reliability values exceeded the recommended thresholds, while the AVE and Fornell–Larcker criterion confirmed convergent and discriminant validity. These results suggest that the constructs were measured appropriately, thereby reducing the potential for common method bias.

Moreover, the structural relationships were statistically significant and aligned with the proposed theoretical framework, indicating that the model specification was sufficiently

robust and that potential endogeneity was unlikely to materially affect the estimated relationships.

Table 5 indicates that the model shows varying levels of explanatory power across constructs, with strong explanatory power for Economic Greed (KEk), with an R-square value of 0.668, moderate explanatory power for ESDA, with an R-square value of 0.313, and *tawāḍuʿ* (Ta), with an R-square value of 0.220, and weak explanatory power for KE, with an R-square value of 0.032. The adjusted R-square closely align with these results, confirming model stability and the absence of overfitting. Overall, the model demonstrates higher predictive relevance for KEk compared to the other constructs, highlighting its more dominant role within the structural model.

Table 5. R-Square and Adjusted R-Square Values

Construct	R-square	R-square adjusted
Natural Resource Exploitation	0.313	0.310
Ecological Poverty	0.032	0.028
Economic Greed	0.668	0.667
Tawāḍuʿ	0.220	0.214

Source: Primary data (questionnaire) processed using SmartPLS 4.1.1.7, 2026.

Table 6 summarizes the f-square values, indicating the effect sizes among constructs in the model. Natural Resource Exploitation shows a very strong effect on Economic Greed (KEk), with an f-square value of 2.015, while Environmental Injustice has a moderate effect on ESDA, with an f-square value of 0.455, and Sustainable Environmental Policy moderately influences *tawāḍuʿ*, with an f-square value of 0.277. In contrast, Economic Greed has a weak effect on *tawāḍuʿ*, with an f-square value of 0.025, and *tawāḍuʿ* shows a weak effect on Ecological Poverty, with an f-square value of 0.033. Overall, the findings suggest that effect sizes vary across relationships, with Natural Resource Exploitation exerting the most substantial impact within the model.

Table 6. F-Square Values

Construct	ESDA	KE	KEk	KL	KLB	Ta
Natural Resource Exploitation			2.015			
Ecological Poverty						
Economic Greed						0.025
Environmental Injustice	0.455					
Sustainable Environmental Policy						0.277
Tawāḍuʿ		0.033				

Source: Primary data (questionnaire) processed using SmartPLS 4.1.1.7, 2026.

Table 7 reveals significant structural relationships within the model. Natural Resource Exploitation shows a strong positive influence on Economic Greed, with a coefficient of 0.818, indicating that increased exploitation tends to intensify economic greed. Environmental

Injustice also significantly affects Natural Resource Exploitation, with a coefficient of 0.559, suggesting that structural inequality leads to greater resource exploitation. Economic Greed demonstrates a negative but significant effect on *Tawāḍu'*, with a coefficient of -0.156, indicating that higher greed tends to weaken *tawāḍu'*. In contrast, Sustainable Environmental Policy positively influences *Tawāḍu'*, with a coefficient of 0.515, suggesting that stronger environmental policies tend to enhance ethical awareness. Furthermore, *Tawāḍu'* significantly affects Ecological Poverty, with a coefficient of 0.179, indicating that moral values are associated with ecological outcomes. Overall, these findings confirm that all direct relationships proposed in the structural model are statistically significant.

Table 7. SEM-PLS: Results of Direct Effects Testing

Relationship of Variables		Coefficient	T statistics	P values
H1	*Tawāḍu'* → Ecological Poverty	0.179	2.724	0.007
H2	Sustainable Environmental Policy → *Tawāḍu'*	0.515	7.303	0.000
H3	Economic Greed → *Tawāḍu'*	-0.156	2.509	0.013
H4	Natural Resource Exploitation → Economic Greed	0.818	29.415	0.000
H5	Environmental Injustice → Natural Resource Exploitation	0.559	11.504	0.000

Source: Primary data (questionnaire) processed using SmartPLS 4.1.1.7, 2026.

Figure 2 illustrates the structural model and the relationships among variables based on SEM-PLS analysis. The figure visually confirms the direction and strength of the relationships identified in Table 7 and Table 8, reinforcing the consistency of the structural model results.

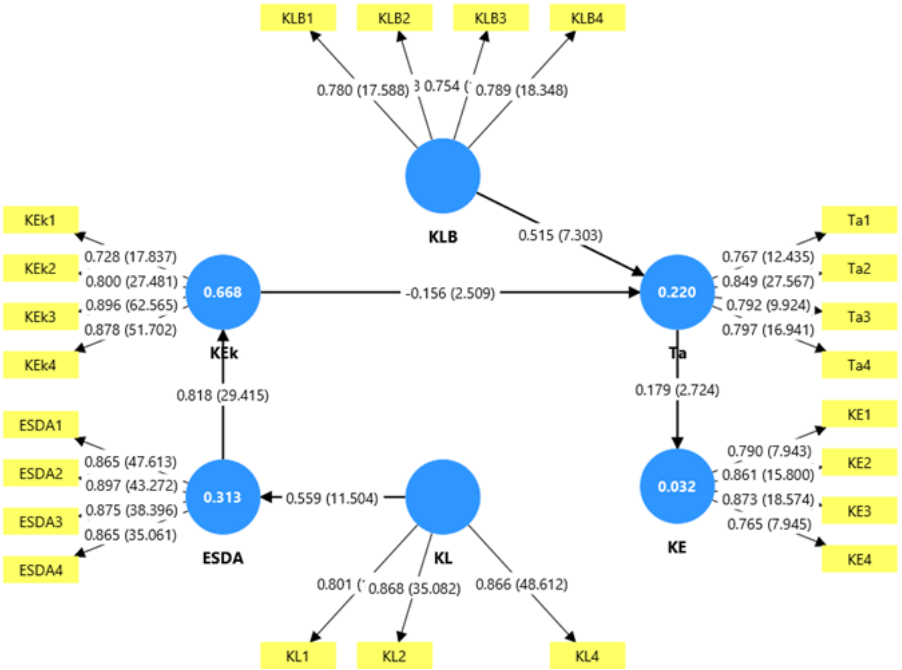

Figure 2. Output of the structural model testing

Table 8 presents several significant mediation paths within the model. Natural Resource Exploitation indirectly influences *Tawāḍuʿ* through Economic Greed, with a coefficient of -0.127, indicating that increased exploitation tends to weaken *tawāḍuʿ* through higher economic greed. Environmental Injustice also indirectly affects Economic Greed through Natural Resource Exploitation, with a coefficient of 0.457, indicating a positive indirect relationship. In addition, Economic Greed negatively affects Ecological Poverty through *Tawāḍuʿ*, with a coefficient of -0.028, while Sustainable Environmental Policy positively influences Ecological Poverty through *Tawāḍuʿ*, with a coefficient of 0.092. Overall, these findings confirm that the mediation relationships proposed in the structural model are statistically significant.

Table 8. SEM-PLS: Results of Mediation Effects Testing

Relationship of Variables		Coefficient	T statistics	P values
H6a	Sustainable Environmental Policy →*Tawāḍuʿ* → Ecological Poverty	0.092	2.108	0.036
H6b	Economic Greed →*Tawāḍuʿ* → Ecological Poverty	-0.028	2.302	0.022
H7	Natural Resource Exploitation → Economic Greed →*Tawāḍuʿ*	-0.127	2.478	0.014
H8	Environmental Injustice → Natural Resource Exploitation → Economic Greed	0.457	10.270	0.000

Source: Primary data (questionnaire) processed using SmartPLS 4.1.1.7, 2026.

Discussion

The results presented in Table 7 indicate that environmental injustice significantly increases natural resource exploitation, which in turn intensifies economic greed, reflecting a stronger orientation toward profit accumulation. This finding suggests that unequal environmental governance creates conditions that encourage excessive resource extraction, as reflected in the indicators of exploitation and greed, which emphasize utilitarian and profit-driven behavior. Economic greed was also found to negatively affect *tawāḍuʿ*, indicating that stronger materialistic tendencies tend to weaken humility, ethical restraint, and moral-spiritual awareness. In contrast, sustainable environmental policy positively influences *tawāḍuʿ*, suggesting that fair and responsible governance practices encourage accountability and ethical awareness in environmental behavior. Furthermore, the significant relationship between *tawāḍuʿ* and ecological poverty indicates that moral-spiritual values are closely related to ecological well-being and social resilience. These findings imply that ecological sustainability depends not only on environmental regulation but also on strengthening ethical values that shape human interaction with natural resources.

This study adopts an integrative environmental ethics framework combining Deep Ecology, Environmental Justice, and the concept of *khilāfah* to explain the relationships among the variables. The findings confirm that ecological crises are not merely the result of technical failures but are also shaped by structural inequality, exploitative behavior, and weakening moral responsibility. The positive relationship between environmental injustice

and natural resource exploitation supports the Environmental Justice perspective, which emphasizes that unequal environmental burdens intensify ecological degradation, while the influence of exploitation on economic greed aligns with Deep Ecology, where nature is reduced to an economic commodity (Bernardini Papalia & Scognamiglio, 2023). Conversely, the positive effect of sustainable environmental policy on *tawāḍuʿ* suggests that governance mechanisms can strengthen ethical responsibility and encourage environmentally responsible behavior (Basri et al., 2024). These findings are consistent with prior studies emphasizing that justice, ethical values, and institutional responsibility are essential for sustainable ecological management

From the perspective of *khilāfah*, the findings indicate that environmental responsibility is inseparable from moral and spiritual accountability. Excessive exploitation of natural resources and economic greed reflect the weakening of ethical stewardship, whereas *tawāḍuʿ* functions as a moral value that encourages moderation, humility, and responsibility in environmental utilization. This interpretation is consistent with the Qur'anic principle in QS Al-Baqarah/2:30, which emphasizes human responsibility as stewards of the Earth, as well as QS Al-Aʿrāf/7:56, which warns against causing environmental destruction after balance has been established. Thus, the negative effect of economic greed on *tawāḍuʿ* indicates that materialistic orientation may weaken moral responsibility, while sustainable environmental policy can reinforce ethical awareness and ecological responsibility. This suggests that environmental governance should integrate moral-spiritual values to support a balanced and sustainable relationship between humans and nature.

The mediation results presented in Table 8 further reveal that economic greed mediates the relationship between natural resource exploitation and *tawāḍuʿ*, while *tawāḍuʿ* mediates the effects of sustainable environmental policy and economic greed on ecological poverty. In addition, natural resource exploitation is found to mediate the relationship between environmental injustice and economic greed, indicating that structural inequality first increases the intensity of resource exploitation, which subsequently strengthens economic greed within the socio-economic system. These findings indicate that structural environmental conditions influence ecological outcomes through interconnected moral and behavioral mechanisms. The indicators of exploitation and greed reflect strong material-oriented behavior that prioritizes profit accumulation, thereby weakening ethical self-restraint, whereas the indicators of sustainable environmental policy reflect governance-based responsibility that strengthens moral awareness and reinforces *tawāḍuʿ*. This demonstrates that *tawāḍuʿ* functions as a critical moral mechanism that translates structural and policy influences into ethical environmental behavior while mitigating the negative effects of exploitative economic orientation.

These relationships further imply that ecological poverty is not solely determined by environmental and structural conditions, but is also shaped by internal moral capacities that regulate economic behavior. This mediation mechanism indicates that natural resource exploitation and environmental injustice structurally reinforce economic greed, which in turn weakens *tawāḍuʿ* and exacerbates ecological poverty, reflecting a chain of interrelated causal processes within the model. Grounded in the perspectives of deep ecology, environmental

justice, and *khilāfah*, these relationships capture the interconnected ecological, structural, and moral dimensions of environmental degradation (Shi et al., 2023). In this context, *tawāḍuʿ* operates as an ethical control mechanism that moderates the influence of greed-driven economic actions and enhances the effectiveness of sustainable environmental policies in promoting ecological well-being. Conversely, sustainable environmental policies contribute to strengthening *tawāḍuʿ* by embedding ethical and moral values within governance practices (Bsoul et al., 2022). This highlights that behavioral transformation is an essential pathway through which structural environmental factors generate ecological outcomes. Overall, these findings emphasize the importance of an integrated structural, behavioral, and ethical-spiritual approach for achieving sustainable socio-ecological development.

From an Islamic perspective, this mediating mechanism reflects the principle of balance (*mīzān*) in environmental governance as emphasized in QS Al-Qaṣaṣ/28:77. *Tawāḍuʿ* represents a moral responsibility that ensures human actions remain within ethical and ecological boundaries, whereas excessive exploitation and economic greed reflect the weakening of stewardship responsibilities. Therefore, sustainable environmental governance requires the integration of structural policy interventions with moral-spiritual reinforcement to strengthen ethical responsibility, enhance collective ecological awareness, and support long-term socio-ecological sustainability.

CONCLUSION

This study confirms that *tawāḍuʿ* serves as a key mediating construct in reducing ecological poverty by shaping more ethical and responsible economic behavior within an Islamic ethical framework. The findings reveal that environmental injustice significantly drives natural resource exploitation, which subsequently intensifies economic greed and weakens *tawāḍuʿ*. In contrast, sustainable environmental policies play a crucial role in strengthening *tawāḍuʿ*, thereby encouraging more balanced and responsible economic behavior that contributes to the reduction of ecological poverty. These results demonstrate that ecological issues are not merely technical or economic problems, but are deeply rooted in moral-spiritual values that influence individual and collective behavior.

The novelty of this study lies in empirically positioning *tawāḍuʿ* as a moral mediator that links structural factors and economic behavior to ecological poverty reduction within an integrated ecological–structural–spiritual model. This study contributes theoretically by combining deep ecology, environmental justice, and the concept of *khilāfah* into a unified analytical framework, while empirically demonstrating how moral-spiritual values influence socio-economic and environmental outcomes. Practically, the findings provide insights for policymakers and stakeholders to design sustainability strategies that are not only structurally effective but also ethically grounded.

However, this research is limited by its focus on Muslim middle-class communities in South Sulawesi, which may constrain the generalizability of its findings. The use of convenience sampling and a cross-sectional design may also limit representativeness and the ability to capture dynamic changes over time. Despite these limitations, this study offers a

strong foundation for future research to explore broader contexts and develop more comprehensive models.

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