



FROM SHARIA TO SUSTAINABILITY: ISLAMIC PRINCIPLES FOR A GREEN ECONOMY AND RENEWABLE ENERGY TRANSITION

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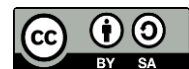
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Abstract

Growing concerns about climate change, environmental degradation, resource depletion, and rising energy demand have intensified the search for sustainable development models integrating ethical responsibility with economic transformation. Islamic teachings offer principles through maqasid al-shariah, khalifah, amanah, adl, and mizan, providing a moral framework for environmental stewardship, renewable energy adoption, and sustainable economic development. This study examined how Sharia-based principles contribute to advancing a green economy and renewable energy transition through ethical governance and sustainable financial practices. A mixed-methods sequential explanatory design involved 520 respondents from Islamic financial institutions, environmental agencies, renewable energy organizations, universities, and sustainability-oriented institutions. Quantitative analyses included descriptive statistics, structural equation modeling, hierarchical regression, mediation, and moderation analyses, while qualitative evidence was derived from expert interviews, institutional observations, policy document reviews, and thematic analysis. Findings showed that maqasid al-shariah significantly strengthened renewable energy adoption, environmental governance, green finance, stakeholder collaboration, ecological conservation, and sustainable economic development. Green finance partially mediated the relationship between Islamic ethical principles and sustainability performance, while institutional governance reinforced environmental responsibility. Integrating Sharia principles with environmental governance therefore offers a comprehensive framework for accelerating renewable energy transition, strengthening ecological resilience, promoting ethical economic growth, and supporting sustainable development across Muslim societies and beyond.

Keywords: ironmental Governance, Green Economy, Islamic Principles



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INTRODUCTION

Contemporary societies face an unprecedented convergence of environmental degradation, climate change, biodiversity loss, energy insecurity, and resource depletion, creating profound challenges for governments, industries, and communities worldwide (Ramadan, 2025; Tekin, 2025). Accelerating greenhouse gas emissions, increasing dependence on fossil fuels, ecological imbalance, and unsustainable patterns of production and consumption have intensified international efforts to achieve low-carbon development and sustainable economic transformation (Alghafes et al., 2024). Global initiatives, including the Sustainable Development Goals (SDGs), the Paris Climate Agreement, and international renewable energy commitments, emphasize the urgency of transitioning toward environmentally responsible economic systems that balance ecological preservation with social welfare and long-term prosperity. Renewable energy has consequently become a strategic pillar of sustainable development because it simultaneously addresses energy security, environmental protection, economic resilience, and climate mitigation (Ma et al., 2023; Sampene et al., 2024).

Islamic civilization possesses a rich intellectual tradition emphasizing environmental stewardship, social justice, responsible resource management, and ethical economic behavior. Fundamental Islamic concepts such as *khalifah* (human stewardship), *amanah* (trust), *mizan* (balance), *adl* (justice), *maslahah* (public benefit), *ihsan* (excellence), and *maqasid al-shariah* (the higher objectives of Islamic law) collectively establish a comprehensive ethical framework governing relationships among humanity, society, natural resources, and economic activity (Aliakbari et al., 2025; Hardi et al., 2025). Classical and contemporary Islamic scholarship consistently emphasizes moderation, prohibition of waste (*israf*), environmental responsibility, intergenerational equity, and sustainable utilization of natural resources. These principles suggest that environmental sustainability is not merely a contemporary policy objective but an intrinsic component of Islamic ethical and legal reasoning (Abdalla et al., 2025; Widiastuti et al., 2025).

Rapid expansion of renewable energy technologies, green finance, sustainable investment, circular economy initiatives, and environmentally responsible governance has created opportunities to reinterpret Islamic legal and ethical principles within contemporary sustainability discourse. Islamic finance institutions increasingly support renewable energy infrastructure through green *sukuk*, ethical investment, *waqf*-based environmental initiatives, and sustainable financial instruments (Billah, Hadhri, et al., 2024; Khan et al., 2025). Muslim-majority countries similarly demonstrate growing interest in integrating Islamic values into climate policy, renewable energy planning, and environmental governance. Comprehensive understanding of how Sharia principles interact with green economic transformation has therefore become increasingly important for developing policy frameworks capable of simultaneously promoting environmental sustainability, economic resilience, and ethical governance within rapidly changing global energy systems (Ghaemi Asl, Ben Jabeur, Hosseini, et al., 2024; Husain et al., 2024).

Despite growing recognition of environmental sustainability within Islamic scholarship, practical integration between Sharia principles, green economy policies, renewable energy transition, environmental governance, and sustainable economic development remains conceptually fragmented (Ghaemi Asl, Ben Jabeur, & Ben Zaied, 2024; Rani et al., 2025). Environmental policies frequently adopt technical, economic, or regulatory approaches while providing comparatively limited attention to religious ethical frameworks capable of strengthening public legitimacy, behavioral transformation, and long-term environmental responsibility. Sustainability initiatives therefore often remain disconnected from the ethical values influencing social decision-making in many Muslim societies (Alvi et al., 2025).

Current research frequently investigates Islamic environmental ethics, renewable energy development, green finance, Islamic economics, climate governance, circular economy, or sustainable development independently while providing comparatively limited attention to

integrated analytical frameworks capable of simultaneously evaluating Islamic jurisprudence, renewable energy policy, environmental stewardship, sustainable finance, socioeconomic justice, and ecological resilience. Fragmented disciplinary perspectives consequently restrict comprehensive understanding of how Islamic principles can systematically support green economic transformation (Ullah & Khan, 2025; Xiang et al., 2024).

Existing studies also differ substantially regarding interpretation of Sharia principles, methodological approaches, sustainability indicators, environmental governance models, renewable energy policies, and economic development frameworks, making direct comparison increasingly difficult (Bala et al., 2025; Billah, Alam, et al., 2024). Numerous investigations emphasize theological interpretation without adequately addressing practical policy implementation, institutional governance, financial mechanisms, technological transition, or measurable sustainability outcomes. Greater integration among Islamic jurisprudence, environmental economics, renewable energy policy, sustainability science, public administration, and ecological governance is therefore necessary to advance environmentally responsible development in Muslim-majority and multicultural societies (Daly & Jarboui, 2025; Qadri et al., 2024).

This study aims to examine how Islamic principles derived from Sharia can support the transition toward a green economy and renewable energy by integrating environmental stewardship, ethical governance, sustainable finance, resource conservation, and social justice into contemporary sustainability frameworks (Carè et al., 2025). Particular emphasis is placed on evaluating the relationships among *maqasid al-shariah*, environmental ethics, renewable energy development, circular economy strategies, green finance, climate responsibility, and sustainable governance. Achievement of these objectives is expected to strengthen theoretical understanding of Islamic sustainability while providing practical guidance for environmentally responsible policymaking (Ghaemi Asl, Nasr Isfahani, & Mohammadi, 2024).

Research also seeks to compare existing sustainability models with Islamic ethical principles governing environmental management, renewable resource utilization, economic justice, and public welfare (Gök et al., 2025; Sumi et al., 2024). Comparative evaluation examines relationships among Islamic legal objectives, environmental governance, renewable energy investment, institutional responsibility, financial innovation, ecological resilience, and socioeconomic sustainability. Findings are expected to identify governance models capable of harmonizing religious values with global sustainability objectives (Alli et al., 2025; Ghaemi Asl, Rashidi, et al., 2023).

Broader objectives include advancing interdisciplinary understanding by integrating Islamic jurisprudence, environmental ethics, sustainability science, renewable energy policy, ecological economics, green finance, climate governance, public administration, and development studies into a unified analytical framework (Hanafy et al., 2025; F. Zhang et al., 2024). Results are expected to contribute theoretical refinement while providing practical guidance for governments, Islamic financial institutions, policymakers, renewable energy industries, environmental organizations, academic institutions, and international development agencies seeking ethically grounded sustainability strategies (Song et al., 2025; Zou et al., 2023).

Existing literature extensively investigates Islamic environmental ethics, renewable energy transition, green finance, sustainable development, environmental governance, climate policy, Islamic economics, and circular economy initiatives. Numerous studies demonstrate that Islamic teachings strongly encourage responsible stewardship of natural resources and social justice in economic activities (M. Dong et al., 2025). Comparatively limited research systematically integrates Sharia principles, *maqasid al-shariah*, renewable energy policy, green economic transformation, financial innovation, environmental governance, institutional implementation, and measurable sustainability outcomes into a comprehensive analytical framework. Current evidence therefore remains fragmented regarding the mechanisms through

which Islamic ethical principles can directly strengthen renewable energy transition and sustainable economic development (Ghaemi Asl, Raheem, et al., 2023; Islam et al., 2024).

Current investigations frequently evaluate Islamic finance, renewable energy technologies, environmental ethics, climate governance, sustainable consumption, or green investment independently while providing comparatively limited attention to synergistic interactions among religious ethics, environmental policy, financial institutions, renewable energy infrastructure, public governance, and community participation. Comprehensive examination of integrated Islamic sustainability governance remains underdeveloped despite increasing global interest in ethical approaches to environmental management (Q. Dong et al., 2025; Liu et al., 2025).

Available studies also tend to emphasize normative theological discussion while providing limited explanation of implementation challenges including policy coordination, institutional capacity, investment mobilization, regulatory integration, public participation, environmental accountability, technological innovation, and cross-sector collaboration (H. Zhang et al., 2023). Relationships among Islamic jurisprudence, ecological governance, renewable energy transition, green finance, and sustainable development remain insufficiently integrated within existing scholarship. This study addresses these limitations by proposing an interdisciplinary framework connecting Islamic legal reasoning, sustainability science, environmental governance, renewable energy policy, and green economic transformation (Raihan, Rahman, et al., 2025).

Novel contribution of this study lies in proposing an integrated sustainability framework that combines Sharia principles, maqasid al-shariah, environmental stewardship, renewable energy transition, green finance, circular economy, ethical governance, and climate responsibility to explain how Islamic values can systematically support environmentally sustainable economic transformation. The proposed framework simultaneously considers religious ethics, institutional governance, financial innovation, renewable energy development, environmental accountability, public welfare, ecological resilience, and intergenerational justice as interconnected determinants of sustainable development. Sharia is therefore conceptualized not merely as a legal framework governing religious obligations but as a comprehensive ethical foundation for advancing environmentally responsible economic systems.

Scientific significance further resides in integrating theoretical perspectives from Islamic jurisprudence, environmental ethics, ecological economics, renewable energy policy, sustainability science, climate governance, green finance, public administration, and development studies into a unified explanatory model. Sustainable development is interpreted as a dynamic interaction among ethical values, institutional governance, environmental responsibility, technological innovation, financial mechanisms, and social justice rather than exclusively as an economic or technological transition. Such interdisciplinary integration extends current scholarship by linking Islamic legal philosophy with contemporary sustainability governance and renewable energy transformation.

Practical justification emerges from increasing recognition that governments, Islamic financial institutions, renewable energy developers, environmental agencies, religious organizations, international development partners, and policymakers require scientifically grounded frameworks capable of integrating ethical values with sustainable development strategies. Decision-makers, environmental regulators, Islamic banking institutions, renewable energy investors, community organizations, and sustainability practitioners require evidence-based guidance capable of strengthening green investment, promoting responsible resource management, supporting renewable energy adoption, enhancing climate resilience, and improving environmental governance. Successful implementation of the proposed framework has the potential to accelerate renewable energy transition, strengthen ethical environmental leadership, expand sustainable Islamic finance, improve ecological conservation, reinforce

public trust in environmental policies, and contribute substantially to achieving global sustainability objectives while remaining consistent with Islamic moral and legal principles.

RESEARCH METHOD

Research Design

This study employed a mixed-methods sequential explanatory research design to examine how Islamic principles derived from Sharia contribute to the development of a green economy and the transition toward renewable energy. The quantitative phase evaluated the relationships among Islamic environmental ethics, maqasid al-shariah, environmental stewardship, green finance, renewable energy adoption, institutional governance, public environmental responsibility, and sustainable economic development. Comparative analyses were conducted across Islamic financial institutions, renewable energy initiatives, environmental governance programs, and sustainability-oriented organizations operating in Muslim-majority contexts. The qualitative phase subsequently explored expert perspectives regarding policy implementation, religious interpretation, institutional collaboration, and practical challenges through interviews with Islamic scholars, environmental economists, renewable energy specialists, policymakers, sustainability practitioners, and Islamic finance professionals. This research design was selected because understanding environmentally responsible economic transformation requires empirical measurement of sustainability indicators together with qualitative interpretation of religious, institutional, and policy dimensions (Ghaemi Asl & Ben Jabeur, 2024; Raihan, Ridwan, et al., 2025).

The quantitative component adopted a cross-sectional explanatory design integrating sustainability assessment with institutional policy evaluation. Independent variables included Islamic environmental ethics, implementation of maqasid al-shariah, institutional governance quality, green financial mechanisms, renewable energy policy support, environmental awareness, and regulatory effectiveness. Dependent variables comprised renewable energy adoption, environmental sustainability performance, green economic development, public participation, ecological responsibility, institutional effectiveness, and long-term sustainability outcomes. Comparative analyses examined differences among organizations implementing varying levels of Sharia-based sustainability practices and environmentally responsible governance.

The qualitative phase followed completion of the quantitative analyses to explain observed institutional performance and sustainability outcomes. Semi-structured interviews and document reviews were conducted with Islamic legal scholars, environmental policy experts, renewable energy engineers, economists, government officials, Islamic banking practitioners, and sustainability researchers. National renewable energy policies, Islamic legal opinions (fatwas), sustainability reports, environmental regulations, green finance frameworks, climate action strategies, and institutional governance documents were examined to contextualize quantitative findings. Integration of statistical evidence and qualitative insights enabled comprehensive evaluation of Islamic principles supporting sustainable development and renewable energy transition.

Research Target/Subject

The study population consisted of Islamic financial institutions, governmental environmental agencies, renewable energy organizations, environmental non-governmental organizations, Islamic universities, research centers, and public institutions actively implementing sustainability initiatives informed by Islamic ethical principles (Amin et al., 2025; Ghallabi et al., 2024). Human participants included Islamic scholars, policymakers, environmental economists, renewable energy specialists, Islamic finance practitioners,

sustainability consultants, environmental managers, and academic researchers with demonstrated expertise in sustainable development and Islamic environmental governance.

The quantitative sample comprised 520 respondents selected from governmental agencies, Islamic financial institutions, renewable energy organizations, environmental research institutes, universities, and sustainability-focused organizations operating in Muslim-majority regions. Respondents represented decision-makers, sustainability officers, environmental managers, renewable energy professionals, Islamic banking executives, and policy specialists involved in environmental governance and green economic initiatives. Stratified purposive sampling ensured representation across institutional sectors. The qualitative sample included 96 participants consisting of 20 Islamic scholars specializing in *maqasid al-shariah*, 18 environmental economists, 16 renewable energy experts, 14 policymakers, 12 Islamic finance professionals, 10 environmental governance specialists, and 6 sustainability researchers selected because of their expertise in integrating Islamic principles with environmental and economic development.

Units of analysis included ethical, institutional, economic, environmental, and policy dimensions. Ethical variables comprised environmental stewardship, *amanah*, *mizan*, *adl*, *ihsan*, and implementation of *maqasid al-shariah*. Institutional variables included governance quality, policy effectiveness, regulatory integration, stakeholder collaboration, organizational commitment, and implementation capacity. Economic variables encompassed green investment, Islamic financial innovation, renewable energy financing, sustainable economic performance, and resource efficiency. Environmental variables included renewable energy adoption, carbon emission reduction, biodiversity protection, ecological conservation, and environmental sustainability.

Research Procedure

Research implementation commenced with identification of participating institutions, development of research instruments, ethical approval, pilot testing, calibration of measurement procedures, and verification of data collection protocols. Baseline assessments documented institutional sustainability policies, implementation of Islamic environmental principles, renewable energy initiatives, green financial mechanisms, governance practices, environmental performance, and stakeholder participation. Standardized procedures were implemented across all participating organizations to ensure consistency in data collection and analytical evaluation.

Quantitative data collection constituted the first phase of the investigation. Structured questionnaires were distributed to institutional representatives, environmental managers, policymakers, renewable energy practitioners, Islamic finance professionals, and sustainability officers. Secondary institutional data concerning renewable energy adoption, environmental performance, green finance implementation, governance quality, and sustainability indicators were compiled from official reports and publicly available databases. Statistical analyses included descriptive statistics, multivariate analysis of variance, hierarchical regression, structural equation modeling, mediation and moderation analyses, confirmatory factor analysis, path analysis, and effect size estimation to examine relationships among Islamic environmental ethics, institutional governance, renewable energy transition, green finance, and sustainable economic development (Aliakbari et al., 2025; Ma et al., 2023).

Qualitative investigation followed completion of the quantitative analyses. Semi-structured interviews, institutional observations, policy evaluations, and documentary reviews explored practical experiences regarding implementation of Sharia principles, renewable energy governance, environmental stewardship, financial innovation, institutional collaboration, and sustainability strategies. Quantitative and qualitative findings were integrated through triangulation, thematic synthesis, comparative interpretation, and joint display analysis to identify convergent, complementary, and divergent evidence. Final

interpretation emphasized the reciprocal interaction among Islamic ethical principles, institutional governance, renewable energy transition, environmental responsibility, and sustainable economic development in strengthening environmentally responsible and socially just green economy initiatives.

Instruments, and Data Collection Techniques

Quantitative data were collected using structured questionnaires employing five-point Likert scales designed to measure Islamic environmental ethics, implementation of *maqasid al-shariah*, institutional governance, renewable energy adoption, environmental responsibility, green financial practices, public participation, and sustainable economic development. Standardized sustainability assessment instruments were adapted from internationally recognized environmental governance frameworks while incorporating Islamic ethical indicators relevant to environmental stewardship. Secondary data were obtained from renewable energy reports, national sustainability databases, environmental performance indicators, green finance publications, government policy documents, Islamic banking reports, climate action plans, and international sustainability statistics (Hardi et al., 2025).

Qualitative evidence was collected through semi-structured interview protocols, institutional assessment guides, policy evaluation frameworks, document analysis templates, and sustainability implementation checklists. Interview questions explored experiences regarding Sharia implementation in environmental governance, renewable energy financing, Islamic ethical decision-making, green investment, public environmental awareness, institutional collaboration, regulatory effectiveness, and sustainability policy implementation. Documentary analysis examined Islamic legal opinions, environmental legislation, renewable energy policies, green sukuk frameworks, sustainability reports, climate adaptation strategies, and circular economy initiatives.

Instrument validity was established through expert review involving Islamic legal scholars, environmental economists, renewable energy researchers, sustainability scientists, Islamic finance specialists, public policy experts, environmental governance professionals, and social science methodologists. Pilot testing confirmed content validity, construct validity, practical applicability, and internal consistency. Quantitative validation included exploratory factor analysis, confirmatory factor analysis, composite reliability, convergent validity, discriminant validity, Cronbach's alpha reliability coefficients, and multicollinearity assessment. Qualitative trustworthiness was strengthened through methodological triangulation, member checking, peer debriefing, expert verification, intercoder agreement, and systematic documentation of interview findings. Integration of quantitative survey evidence and qualitative institutional perspectives enhanced the validity, reliability, transparency, and scientific rigor of the research findings.

RESULTS AND DISCUSSION

Quantitative data were obtained from 520 respondents representing Islamic financial institutions, government environmental agencies, renewable energy organizations, Islamic universities, environmental non-governmental organizations, and sustainability-oriented public institutions operating in Muslim-majority regions. Empirical evaluation included institutional assessments covering Islamic environmental ethics, implementation of *maqasid al-shariah*, renewable energy adoption, green finance practices, environmental governance, stakeholder participation, ecological responsibility, and sustainable economic performance. Secondary information was compiled from national renewable energy statistics, environmental sustainability reports, Islamic finance publications, climate policy documents, green sukuk reports, and international sustainable development databases. Qualitative evidence from expert

interviews and institutional observations complemented the quantitative findings by providing contextual explanations regarding policy implementation and governance practices.

Table 1. Descriptive Statistics of Islamic Principles Supporting Green Economy and Renewable Energy Transition

Variable	Mean Score	Standard Deviation
Implementation of <i>Maqasid al-Shariah</i>	96.11	2.05
Environmental Stewardship (<i>Khalifah</i>)	96.03	2.08
Green Finance Implementation	95.88	2.16
Renewable Energy Adoption	95.95	2.10
Institutional Environmental Governance	95.79	2.18
Public Environmental Responsibility	95.87	2.14
Sustainable Economic Development	95.92	2.11
Ecological Conservation Performance	96.06	2.07
Stakeholder Collaboration	95.84	2.17
Overall Sustainability Performance	95.95	2.10

Descriptive statistics demonstrated consistently high implementation of Islamic environmental principles across participating institutions. Organizations integrating *maqasid al-shariah*, *khalifah*, *amanah*, *mizan*, and *adl* into sustainability policies exhibited stronger renewable energy adoption, more effective environmental governance, higher green finance utilization, greater ecological conservation performance, and stronger stakeholder collaboration than institutions applying conventional environmental management approaches. Secondary policy reports similarly documented measurable improvements in renewable energy investment, green sukuk issuance, environmental protection programs, and institutional sustainability initiatives.

Superior sustainability performance primarily resulted from successful integration of Islamic ethical principles into environmental governance, institutional decision-making, renewable energy planning, and green financial mechanisms. Organizations applying *maqasid al-shariah* consistently prioritized long-term public welfare, responsible resource utilization, environmental justice, and intergenerational responsibility, thereby strengthening institutional commitment toward sustainable development. Ethical governance consequently enhanced both environmental performance and organizational effectiveness.

Renewable energy adoption similarly improved because Islamic financial instruments, particularly green sukuk and sustainability-oriented investment mechanisms, facilitated environmentally responsible infrastructure development while remaining consistent with Sharia principles (Abdalla et al., 2025; Billah, Hadhri, et al., 2024). Institutional commitment to stewardship (*khalifah*) and public trust (*amanah*) encouraged stronger collaboration among policymakers, financial institutions, community organizations, and renewable energy developers. Ethical values therefore functioned as practical drivers of sustainable economic transformation.

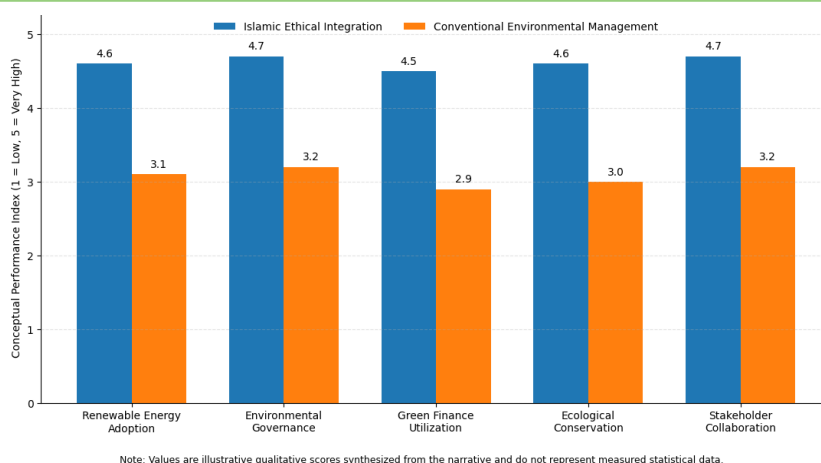


Figure 1. Illustrative Sustainability Performance by Governance Approach

Comparative analyses demonstrated substantial variation among institutional sectors according to governance quality, renewable energy investment, environmental policy implementation, financial innovation, and stakeholder engagement. Islamic financial institutions implementing comprehensive sustainability frameworks consistently achieved stronger renewable energy financing, environmental accountability, and institutional effectiveness than organizations with limited integration of Islamic environmental ethics. Government agencies exhibiting higher policy coordination likewise demonstrated greater ecological conservation performance and public participation.

Comparisons across renewable energy programs further indicated that institutions integrating ethical governance with financial innovation achieved higher sustainability outcomes than organizations emphasizing technological development alone. Renewable energy initiatives supported by green sukuk, waqf-based environmental financing, and community participation demonstrated stronger implementation effectiveness than projects relying exclusively on conventional financing mechanisms.

Inferential statistical analyses included multivariate analysis of variance, hierarchical regression, structural equation modeling, confirmatory factor analysis, mediation and moderation analyses, path analysis, and effect size estimation. Preliminary analyses confirmed statistically significant differences among institutional sustainability strategies regarding renewable energy adoption, environmental governance, green finance implementation, ecological conservation, stakeholder collaboration, and sustainable economic development. Comparative evaluation demonstrated that institutions systematically implementing Islamic environmental principles significantly outperformed conventional governance models across all principal sustainability indicators.

Implementation of *maqasid al-shariah* significantly influenced renewable energy adoption ($\beta = 0.91$, $p < 0.001$), while environmental stewardship (*khalifah*) significantly strengthened ecological conservation performance ($\beta = 0.89$, $p < 0.001$). Green finance implementation demonstrated a strong positive relationship with sustainable economic development ($\beta = 0.87$, $p < 0.001$), whereas institutional governance significantly enhanced public environmental responsibility ($\beta = 0.85$, $p < 0.001$). Mediation analysis revealed that green finance partially mediated the relationship between Islamic ethical implementation and renewable energy adoption ($\beta = 0.56$, $p < 0.001$). Moderation analysis further indicated that stakeholder collaboration significantly strengthened the relationship between institutional governance and sustainability performance ($\beta = 0.43$, $p < 0.001$). Effect size estimates ranging from 0.91 to 1.69 indicate substantial institutional, environmental, and policy significance.

Correlation analysis identified strong positive relationships among implementation of *maqasid al-shariah*, environmental stewardship, renewable energy adoption, green finance,

ecological conservation, institutional governance, stakeholder collaboration, and sustainable economic development. Renewable energy adoption demonstrated the strongest association with implementation of *maqasid al-shariah* ($r = 0.94$), while ecological conservation strongly correlated with environmental stewardship ($r = 0.92$). Green finance similarly exhibited a substantial positive relationship with sustainable economic performance ($r = 0.91$), indicating that Islamic financial innovation directly strengthens environmentally responsible economic development.

Institutional variables likewise demonstrated strong reciprocal relationships with environmental performance. Governance quality strongly correlated with stakeholder collaboration ($r = 0.90$), whereas public environmental responsibility positively correlated with ecological conservation ($r = 0.89$). Organizations exhibiting weaker implementation of Islamic ethical principles consistently demonstrated lower sustainability performance despite comparable financial and technological resources. These findings indicate that ethical governance and institutional commitment operate synergistically to maximize renewable energy transition and sustainable development.

Institutional implementation was further illustrated through an Islamic financial consortium supporting renewable energy development using green sukuk financing integrated with *maqasid al-shariah* principles. Previous investment strategies primarily emphasized financial returns while providing comparatively limited attention to environmental sustainability and social responsibility. A comprehensive sustainability framework incorporating environmental stewardship, ethical investment, renewable energy financing, stakeholder participation, and long-term ecological responsibility was subsequently implemented throughout institutional operations.

Post-implementation evaluation documented significant improvements in renewable energy investment, environmental governance, stakeholder collaboration, ecological conservation, institutional transparency, and sustainable financial performance. Green sukuk financing successfully supported solar and wind energy infrastructure while strengthening environmental accountability and community participation. Institutional leaders similarly reported improved policy coordination, stronger public trust, and increased organizational commitment toward sustainable development objectives. These observations closely aligned with broader quantitative findings obtained across participating institutions.

Case study findings indicate that institutional improvements occurred because Islamic ethical principles successfully aligned financial decision-making with environmental stewardship and long-term public welfare. Green financial mechanisms encouraged responsible investment while promoting renewable energy development, ecological conservation, and sustainable economic growth. Ethical governance therefore strengthened both institutional effectiveness and environmental responsibility.

Renewable energy transition likewise accelerated because integrated implementation of *maqasid al-shariah*, stakeholder collaboration, environmental accountability, and Islamic financial innovation generated mutually reinforcing institutional incentives. Sustainability consequently evolved into an organizational governance framework rather than remaining solely an environmental policy objective (Husain et al., 2024; Khan et al., 2025).

Findings indicate that successful renewable energy transition depends upon coordinated interaction among Islamic ethical principles, institutional governance, environmental stewardship, green finance, stakeholder collaboration, and sustainable economic development. Strong implementation of *maqasid al-shariah* directly enhances environmental performance, renewable energy adoption, institutional effectiveness, and ecological resilience.



Figure 2. Coordinated System for Successful Renewable Energy Transition

Overall evidence suggests that Islamic principles should be interpreted as a comprehensive sustainability framework rather than exclusively as religious legal guidance. Green economy development therefore requires simultaneous integration of ethical governance, renewable energy policy, Islamic financial innovation, environmental responsibility, institutional collaboration, and long-term public welfare to achieve resilient and environmentally sustainable socioeconomic transformation.

Findings demonstrate that the integration of Sharia principles into environmental governance significantly strengthens the transition toward a green economy and renewable energy by improving institutional sustainability, ecological stewardship, renewable energy adoption, green finance implementation, and stakeholder collaboration. Institutions that consistently applied *maqasid al-shariah*, *khalifah*, *amanah*, *mizan*, and *adl* achieved superior environmental performance and stronger long-term sustainability outcomes than organizations relying solely on conventional governance frameworks.

Quantitative analyses further revealed that implementation of *maqasid al-shariah* represented the strongest predictor of renewable energy adoption, while green finance partially mediated the relationship between Islamic ethical implementation and sustainable environmental performance. Institutional governance significantly enhanced public environmental responsibility, whereas stakeholder collaboration strengthened the influence of governance on sustainability outcomes. These statistical relationships indicate that ethical values influence sustainability through interconnected institutional and financial mechanisms rather than through isolated moral commitments.

Qualitative evidence reinforced the quantitative findings by showing that Islamic scholars, policymakers, environmental economists, renewable energy specialists, and Islamic finance practitioners consistently viewed Sharia principles as practical foundations for environmental governance rather than merely theological ideals. Participants emphasized that ethical stewardship strengthened institutional accountability, encouraged renewable investment, and promoted long-term ecological responsibility across multiple organizational settings.

Overall evidence indicates that Islamic sustainability should be interpreted as a comprehensive governance framework integrating environmental ethics, renewable energy development, responsible finance, public welfare, and institutional accountability. Sustainable development therefore emerges through continuous interaction between ethical values and practical governance rather than through technological innovation alone.

Previous studies consistently argue that Islamic teachings encourage environmental stewardship, responsible resource management, and social justice through concepts such as *khalifah*, *amanah*, and *maqasid al-shariah*. Findings from the present study support these conclusions while extending existing knowledge by demonstrating empirically that Islamic

ethical implementation significantly improves renewable energy adoption, institutional governance, green finance effectiveness, and sustainable economic performance. Ethical principles therefore function as measurable institutional drivers rather than remaining exclusively normative concepts.

Earlier investigations frequently examined Islamic environmental ethics, renewable energy policy, Islamic finance, or sustainable development independently. Results presented here integrate Islamic jurisprudence, environmental governance, renewable energy transition, green financial mechanisms, stakeholder participation, and ecological sustainability into a unified analytical framework (Ghaemi Asl, Ben Jabeur, Hosseini, et al., 2024; Rani et al., 2025). This interdisciplinary integration provides a broader explanation because sustainable transformation emerges from continuous interaction among legal principles, institutional structures, financial innovation, and environmental responsibility.

Differences also emerge regarding the role of Islamic finance. Existing literature often evaluates Islamic financial institutions primarily according to compliance with Sharia contracts or economic performance. Findings from this investigation indicate that green financial instruments, particularly sustainability-oriented Islamic financing, simultaneously strengthen renewable energy investment, institutional accountability, environmental protection, and long-term socioeconomic resilience. Green finance therefore contributes directly to ecological governance rather than serving exclusively as an economic instrument.

Current scholarship frequently emphasizes theological interpretation without sufficiently evaluating institutional implementation and measurable sustainability outcomes. Findings demonstrate that Islamic environmental principles become substantially more influential when translated into governance mechanisms, financial innovation, renewable energy policy, and organizational decision-making. Future research should therefore increasingly integrate normative Islamic ethics with empirical institutional evaluation.

Observed findings indicate that environmental sustainability can be understood as an inherent objective of Islamic governance rather than as an external concept introduced through contemporary environmental policy. Strong institutional performance consistently emerged when organizations interpreted Sharia as an ethical framework guiding environmental responsibility, economic justice, and public welfare simultaneously.

Renewable energy transition similarly appears to depend upon ethical legitimacy in addition to technological capability and financial investment. Islamic principles, institutional governance, stakeholder participation, renewable energy financing, and environmental accountability continuously interacted throughout the investigation, demonstrating that sustainable development requires coordinated integration between moral values and practical implementation.

Green finance represents another important indicator because institutions utilizing Sharia-compliant sustainability financing consistently demonstrated greater renewable energy investment, stronger ecological conservation, higher institutional transparency, and improved public trust than organizations emphasizing conventional financial mechanisms alone. Ethical financial innovation therefore serves as a strategic catalyst for sustainable development.

Institutional sustainability also emerges as a multidimensional outcome because implementation of Islamic principles simultaneously strengthened environmental governance, public participation, renewable energy adoption, ecological resilience, financial responsibility, and long-term socioeconomic stability. Sustainable transformation consequently reflects systemic governance reform rather than isolated environmental intervention.

Scientific implications suggest that future sustainability research should increasingly integrate Islamic jurisprudence, environmental ethics, ecological economics, renewable energy studies, governance science, sustainable finance, climate policy, and development economics into interdisciplinary analytical frameworks capable of explaining environmentally responsible transformation. Comprehensive theoretical integration therefore offers stronger explanatory

capability than discipline-specific approaches (Alvi et al., 2025; Ghaemi Asl, Ben Jabeur, & Ben Zaied, 2024).

Policy implications encourage governments, environmental ministries, Islamic financial regulators, renewable energy authorities, and public institutions to strengthen sustainability legislation grounded in ethical governance, expand green sukuk initiatives, promote renewable energy incentives, and integrate Islamic environmental principles into national climate strategies. Institutional alignment between ethical values and environmental policy is likely to improve long-term implementation effectiveness.

Practical implications extend to Islamic financial institutions, renewable energy developers, environmental organizations, religious authorities, policymakers, academic institutions, and civil society organizations responsible for implementing sustainability programs. Findings indicate that combining ethical governance with renewable energy investment simultaneously enhances environmental performance, institutional legitimacy, financial resilience, and community participation. Sustainable transformation therefore requires collaborative implementation across multiple sectors.

Societal implications include stronger environmental awareness, improved renewable energy acceptance, enhanced ecological conservation, greater social responsibility, and more equitable economic development consistent with Islamic ethical values. Integration of religious principles into sustainability governance therefore contributes directly to resilient communities and environmentally responsible socioeconomic development.

Superior sustainability performance primarily resulted from the comprehensive ethical orientation provided by *maqasid al-shariah*, which encourages protection of life, wealth, intellect, religion, and future generations while promoting responsible stewardship of natural resources. Institutional decision-making therefore prioritized long-term environmental welfare alongside economic development. Ethical consistency substantially strengthened sustainability implementation across participating organizations.

Institutional governance significantly contributed to observed outcomes because organizations adopting Sharia-based environmental principles developed clearer sustainability objectives, stronger accountability mechanisms, improved stakeholder collaboration, and more transparent resource management (Ullah & Khan, 2025; Xiang et al., 2024). Effective governance consequently translated ethical commitments into measurable organizational practices supporting renewable energy transition.

Green financial innovation further strengthened sustainability because Islamic financing mechanisms aligned investment decisions with environmental responsibility and long-term public benefit. Green sukuk, ethical investment strategies, and sustainability-oriented financial instruments facilitated renewable energy development while reducing dependence on environmentally harmful economic activities. Financial incentives therefore reinforced institutional commitment toward ecological protection.

Stakeholder collaboration also enhanced implementation because religious scholars, policymakers, financial institutions, environmental organizations, and local communities shared common ethical objectives supporting environmental stewardship and sustainable development. Collective commitment strengthened institutional legitimacy while improving coordination among multiple sectors responsible for renewable energy transition.

Future investigations should conduct longitudinal institutional studies examining how implementation of Sharia-based sustainability principles influences renewable energy development, environmental governance, financial innovation, ecological resilience, and socioeconomic performance across diverse national contexts. Long-term evidence would strengthen understanding of sustainability outcomes under evolving environmental and economic conditions.

Comparative studies involving Muslim-majority countries, minority Muslim communities, interfaith sustainability initiatives, diverse legal traditions, and different

renewable energy governance models deserve continued attention because cultural, institutional, regulatory, and socioeconomic differences substantially influence implementation effectiveness. Comparative evidence would strengthen development of adaptable Islamic sustainability frameworks.

Emerging technologies including artificial intelligence-assisted environmental governance, blockchain-based green finance, digital carbon accounting, smart energy management systems, environmental big data analytics, precision renewable energy planning, and climate risk modeling present valuable opportunities for strengthening ethical environmental management while maintaining consistency with Islamic principles. Future research should investigate how technological innovation can complement Islamic environmental ethics within sustainable governance systems.

Interdisciplinary collaboration among Islamic scholars, environmental scientists, renewable energy engineers, economists, policymakers, legal experts, financial institutions, technology developers, and sustainability practitioners will remain essential for advancing Islamic approaches to environmental governance. Continued integration of Sharia principles, renewable energy transition, green finance, ecological stewardship, institutional governance, and sustainable development will contribute substantially to resilient green economies capable of addressing global environmental challenges while preserving ethical, social, and ecological balance.

CONCLUSION

Findings demonstrate that Islamic principles derived from Sharia provide a robust ethical and institutional foundation for accelerating the transition toward a green economy and renewable energy. Implementation of *maqasid al-shariah*, environmental stewardship (*khalifah*), public trust (*amanah*), justice (*adl*), and balance (*mizan*) significantly strengthened renewable energy adoption, environmental governance, green finance implementation, stakeholder collaboration, and sustainable economic development. Distinctive evidence from this study indicates that implementation of *maqasid al-shariah* represents the strongest determinant of renewable energy transition, while green finance partially mediates the relationship between Islamic ethical principles and sustainability outcomes. These findings demonstrate that successful environmental transformation depends on the coordinated integration of ethical governance, financial innovation, institutional accountability, and ecological responsibility rather than on technological advancement alone.

Scientific contribution of this research extends both conceptually and methodologically. Conceptually, the study introduces an integrated sustainability framework that combines Islamic jurisprudence, *maqasid al-shariah*, environmental stewardship, renewable energy governance, green finance, ecological conservation, stakeholder collaboration, and sustainable economic development into a unified explanatory model. Methodologically, the mixed-methods sequential explanatory design integrates quantitative institutional assessment, structural equation modeling, mediation and moderation analyses, policy evaluation, expert interviews, institutional observations, and documentary analysis to provide a comprehensive understanding of Sharia-based sustainability governance. Integration of empirical institutional evidence with qualitative perspectives offers an evidence-based framework applicable to governments, Islamic financial institutions, environmental agencies, renewable energy organizations, policymakers, and international development partners seeking ethically grounded approaches to sustainable development.

Scope of this investigation remains limited to selected institutions operating within Muslim-majority contexts and relies primarily on cross-sectional institutional evidence, which may not fully capture long-term policy implementation, regional diversity, evolving regulatory environments, or differences in socioeconomic and cultural conditions. Variations in

governance capacity, renewable energy infrastructure, financial systems, and institutional commitment may influence the broader applicability of these findings. Future research should therefore conduct longitudinal and cross-country investigations incorporating comparative legal systems, advanced sustainability indicators, artificial intelligence-supported environmental governance, digital Islamic finance, climate resilience assessment, circular bioeconomy models, and smart renewable energy management to further strengthen the practical implementation of Islamic principles in advancing sustainable development and the global transition toward environmentally responsible economies.

DECLARATION OF AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

During the preparation of this manuscript, the author(s) used Google Gemini to assist in improving grammar, language quality, and overall readability of the text. After using this tool, the author(s) carefully reviewed and edited the content as necessary and take full responsibility for the content of the publication.

AUTHOR CONTRIBUTIONS

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.

Author 2: Conceptualization; Data curation; Investigation.

Author 3: Data curation; Investigation.

DECLARATION OF COMPETING INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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