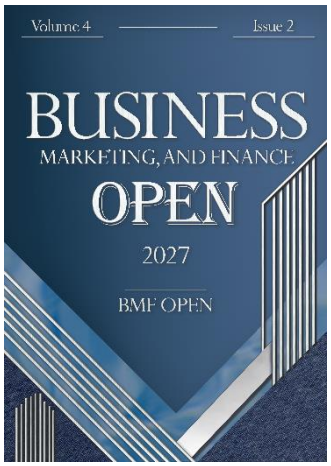
Conceptualizing Consciousness- and Blessing-Based Ecological General Equilibrium

Amir Biganian [1], Mohammad Khezri [2], Fatemeh Zandi [3,*] and Khashayar Seyed Shokri [4]

[1] Department of Economics, ST.C., Islamic Azad University, Tehran, Iran;
[2] Department of Economics, ST.C., Islamic Azad University, Tehran, Iran;
[3] Department of Economics, ST.C., Islamic Azad University, Tehran, Iran;
[4] Department of Economics, CT.C., Islamic Azad University, Tehran, Iran;

* Correspondence: fzandi46@iau.ac.ir



Citation: Biganian, A., Khezri, M., Zandi, F., & Seyed Shokri, K. (2027). Conceptualizing Consciousness- and Blessing-Based Ecological General Equilibrium. *Business, Marketing, and Finance Open*, 4(2), 1-12.

Received: 01 January 2026
Revised: 17 May 2026
Accepted: 26 May 2026
Initial Publication: 02 September 2026
Final Publication: 01 March 2027

Abstract: The present study aimed to develop and mathematically formalize a consciousness- and blessing-based ecological dynamic general equilibrium model capable of explaining how collective behavioral alignment and regenerative fields influence long-run economic-ecological sustainability and welfare dynamics. This study was fundamental-developmental and theoretical-conceptual in nature and employed a mathematical modeling approach grounded in dynamic general equilibrium theory, ecological economics, behavioral economics, and Islamic economic thought. The proposed framework integrated economic and ecological variables within a unified dynamic system while introducing two additional field-based mechanisms: the alignment field and the blessing field. A representative household and representative firm were modeled under intertemporal optimization conditions, and market-clearing constraints were imposed to establish equilibrium conditions. Consciousness was conceptualized as an exogenous systemic field modulated by observable collective behavioral indicators such as cooperation, ecological responsibility, ethical conduct, and social trust. The blessing field was mathematically formulated as a regenerative mechanism acting upon ecological resources through a linear lifting operator. A Bellman dynamic programming framework was employed to define the optimization problem of the social planner. Numerical simulation was then conducted under two scenarios, including a baseline economy without consciousness and blessing effects and a consciousness-based economy incorporating both fields. The findings demonstrated that the consciousness-based equilibrium model generated significantly higher ecological resource levels, stronger regenerative capacity, lower market-ecology misalignment, and higher welfare outcomes compared to the baseline equilibrium structure. The alignment field reduced divergence between market prices and ecological shadow prices, thereby improving systemic coordination and long-run equilibrium stability. The blessing field amplified ecological regeneration and increased resilience against extraction pressure. Simulation trajectories indicated that the baseline economy converged toward a relatively stagnant ecological equilibrium, whereas the consciousness-based system exhibited sustained regenerative growth and superior long-run stability. The welfare function also improved substantially in the consciousness-based scenario due to simultaneous reductions in ecological inefficiency and increases in regenerative abundance.

Keywords: Consciousness, Blessing, Ecological Economics, Dynamic General Equilibrium, Sustainability, Regeneration, Islamic Economics, Behavioral Economics, Ecological Alignment, Welfare Dynamics

1. Introduction

Classical economics has traditionally been constructed upon the principle of scarcity, assuming that human needs are unlimited while material resources remain fundamentally constrained. Within this framework, economic equilibrium emerges through price mechanisms, market adjustments, and rational allocation of limited resources.

However, the growing ecological crises of the twenty-first century, including climate instability, biodiversity collapse, resource depletion, and systemic inequality, have increasingly revealed the limitations of purely market-centered equilibrium models. Modern ecological and behavioral studies demonstrate that economic systems cannot be understood independently from environmental regeneration, collective behavior, ethical norms, and social coordination mechanisms [1, 2]. Consequently, the search for alternative paradigms capable of integrating economic activity with ecological sustainability and human consciousness has become one of the major theoretical challenges in contemporary economic thought.

Recent developments in ecological economics have emphasized that environmental systems possess regenerative capacities that are highly sensitive to patterns of human behavior and institutional organization. Studies on ecosystem restoration and ecological rehabilitation indicate that cooperative and ecologically aligned human actions can significantly enhance environmental resilience and long-run productivity [3, 4]. Empirical evidence from the Loess Plateau restoration project in China demonstrated that coordinated land management and sustainable behavioral practices transformed degraded ecological systems into productive and resilient landscapes [5]. Similar findings have been reported in Ethiopia's Tigray region, where collective environmental stewardship and regenerative land rehabilitation improved soil fertility, water retention, and agricultural sustainability [6, 7]. These findings suggest that ecological systems do not merely respond mechanically to extraction pressures but exhibit dynamic regenerative reactions to human behavioral patterns and collective environmental ethics.

Parallel evidence has also emerged from studies of traditional ecological systems and indigenous resource management. Research on sacred groves in India demonstrates that spiritually grounded conservation practices generate significantly higher levels of biodiversity and ecological stability compared to commercially exploited regions [8, 9]. Similarly, Mongolian nomadic grazing systems, based on ecological respect and adaptive behavioral norms, have proven more sustainable than intensive industrial grazing models [10, 11]. Marine ecological studies further show that coral reef ecosystems recover rapidly when destructive extraction patterns are reduced and cooperative environmental management is implemented [12]. Together, these studies reveal a recurring systemic pattern: when human behavior becomes aligned with ecological capacities and ethical restraint, ecological systems respond with regeneration, resilience, and abundance rather than depletion and collapse.

Although modern ecological economics acknowledges the importance of social cooperation and environmental awareness, mainstream equilibrium models continue to treat consciousness, ethical alignment, and collective awareness as external or secondary variables. Existing dynamic equilibrium frameworks primarily rely on prices, incentives, and technological constraints while neglecting deeper layers of behavioral coordination and consciousness-driven systemic interactions [1, 2]. Behavioral economics has partially challenged this reductionist perspective by demonstrating that human decisions are shaped by bounded rationality, cognitive limitations, and informational asymmetries [13, 14]. Nevertheless, even these approaches largely interpret awareness as an individual cognitive limitation rather than as a systemic and field-like phenomenon capable of influencing macroeconomic and ecological equilibria.

In contrast, recent interdisciplinary developments in social physics and field theory suggest that collective behavior can generate emergent systemic structures that shape economic and social dynamics at the macro level. Helbing's theory of social physics conceptualizes society as a complex interactive system in which local interactions produce global patterns through nonlinear feedback mechanisms [15]. Likewise, Bourdieu's field theory explains that social systems operate through invisible relational structures that influence behaviors, institutions, and power distributions beyond isolated individual actions [16]. These theoretical perspectives open the possibility of

interpreting consciousness and collective awareness not merely as psychological states but as systemic fields capable of influencing economic and ecological dynamics through distributed behavioral interactions.

Within Islamic intellectual traditions, the concepts of blessing ("barakah") and consciousness occupy a central position in understanding the relationship between human action, justice, morality, and material abundance. Islamic economics does not reduce economic prosperity solely to material accumulation or market efficiency; rather, it emphasizes the moral and spiritual conditions underlying sustainable prosperity and social justice [17, 18]. The concept of blessing in Islamic thought refers to a form of regenerative abundance in which ethical behavior, justice, cooperation, and moral alignment increase the productivity and sustainability of economic and ecological systems [19]. In this framework, abundance is not interpreted merely as increased extraction but as enhanced regenerative capacity and systemic harmony. Contemporary studies in Islamic economics have increasingly argued that ethical principles and spiritual foundations are essential for achieving long-run sustainability and equitable development [20, 21].

Recent scholarship in Islamic economic theory has also emphasized the need to reinterpret classical Islamic principles within the context of modern economic crises and institutional structures. Rajaei and Amiri argue that Islamic economic principles provide a normative framework for protecting economic rights and social justice during periods of structural instability and fiscal imbalance [22]. Similarly, Sadeghi and Taheri demonstrate that theories of economic justice have evolved from purely philosophical discussions toward practical institutional and policy-oriented applications capable of addressing contemporary inequalities and ecological disruptions [23]. Islamic finance research further highlights the importance of integrating ethical governance, justice-oriented financial systems, and socially responsible investment structures into economic institutions [24, 25]. Comparative studies between Islamic accounting standards and global financial reporting frameworks also reveal growing efforts to reconcile moral accountability with modern economic systems [26].

Despite these theoretical advances, there remains no formal mathematical framework capable of integrating the concepts of consciousness and blessing into a dynamic general equilibrium structure. Existing economic models either treat ethics as an exogenous institutional variable or reduce social behavior to preference adjustments within utility functions. None of the prevailing equilibrium models formally conceptualize consciousness as a systemic field influencing ecological regeneration, market alignment, and dynamic resource sustainability. Consequently, an important theoretical gap persists between ecological economics, behavioral complexity theory, and Islamic economic philosophy.

The present study addresses this gap by proposing a novel dynamic general equilibrium framework in which consciousness and blessing are incorporated as exogenous systemic fields influencing economic-ecological dynamics. The proposed model moves beyond classical scarcity-centered economics toward a regenerative conception of equilibrium in which collective behavior modulates the intensity of consciousness fields that subsequently affect resource regeneration, systemic resilience, and welfare outcomes. Drawing upon field theory, ecological regeneration studies, Islamic economics, and dynamic optimization theory, the study introduces two interconnected mechanisms: an alignment field that reduces the discrepancy between market prices and ecological shadow prices, and a blessing field that enhances regenerative capacities within ecological and economic systems [27]. In this framework, human behavior functions not as the creator of consciousness but as a modulator that amplifies or weakens the effective influence of underlying consciousness fields on systemic dynamics.

The theoretical contribution of this study lies in constructing a formal bridge between philosophical-religious concepts and mathematical equilibrium modeling. By integrating consciousness-sensitive mechanisms into a

dynamic economic-ecological system, the model offers a new interpretation of sustainability in which regeneration, ethical coordination, and systemic alignment become endogenous drivers of long-run equilibrium rather than peripheral institutional corrections. This approach provides a foundation for reconceptualizing economic welfare beyond material consumption and toward multidimensional resilience, ecological harmony, and regenerative abundance.

Therefore, the aim of the present study is to develop and mathematically formalize a consciousness- and blessing-based ecological dynamic general equilibrium model capable of explaining how collective behavioral alignment and regenerative fields influence long-run economic-ecological sustainability and welfare dynamics.

2. Methodology

This study is fundamental-developmental in terms of purpose and theoretical-conceptual in nature, employing a mathematical formalization and dynamic general equilibrium modeling approach. The research framework was developed through the integration of three major theoretical domains: dynamic general equilibrium economics, ecological economics, and field theory. The primary objective was to incorporate the concepts of "consciousness" and "blessing" as exogenous fields into a unified economic-ecological system. The methodology was based on theoretical analysis, conceptual abstraction from the literature of Islamic economics, environmental economics, behavioral economics, and complex systems theory, followed by the transformation of these concepts into explicit mathematical relationships within a discrete-time dynamic equilibrium structure. Unlike conventional general equilibrium models, which rely exclusively on market prices and resource constraints, the present model introduces an additional regulatory layer consisting of a consciousness field and a blessing field, allowing the system to capture the effects of collective behavior, ecological alignment, ethical coordination, and regenerative capacities beyond classical price mechanisms.

The first stage of the modeling process involved defining the economic-ecological state vector of the system. The state variable was denoted by X_t, which includes both economic and ecological components, while the ecological resource subspace was represented by R_t. Two categories of prices were simultaneously incorporated into the model: market prices $P_t^m$and ecological shadow prices P_t^e. The inclusion of both pricing systems made it possible to measure the degree of misalignment between market-driven allocation and ecological sustainability. A representative household and a representative firm were then modeled within a standard microeconomic optimization framework. The representative household maximizes intertemporal utility subject to a budget constraint, whereas the representative firm maximizes profits under technological constraints. Market-clearing conditions for goods and production factors were subsequently imposed to ensure the existence of a general equilibrium structure. This foundational layer of the model was therefore constructed according to the standard principles of dynamic stochastic general equilibrium modeling and ecological macroeconomics, while maintaining consistency with the proposed consciousness-based extension.

To operationalize the concept of consciousness within the mathematical framework, the study introduced consciousness channels that generate directional systemic effects. Each consciousness channel was assumed to produce a potential function capable of affecting the trajectory of the economic-ecological system. A behavioral index denoted by $H_t$was defined to represent observable collective behaviors such as cooperation, ecological responsibility, trust, ethical conduct, and sustainable resource use. Importantly, behavior itself was not interpreted as consciousness; rather, it was conceptualized as a modulator of the intensity of consciousness fields. The model therefore assumes the existence of an underlying exogenous consciousness field that precedes and transcends

individual economic actions, while human behavior merely amplifies or weakens the effective intensity of this field within the system. Based on this assumption, the alignment field was formulated as a mechanism capable of reducing the discrepancy between market prices and ecological shadow prices. The corresponding alignment function was expressed as a behavioral-dependent field whose intensity changes according to the collective ethical and ecological orientation of society.

The study further introduced a blessing function as the regenerative dimension of the model. In this framework, blessing was conceptualized not as a direct material input, but as a systemic regenerative potential that enhances the adaptive and restorative capacity of ecological and economic resources. The blessing field acts upon the resource subspace through a linear lifting operator L, which transfers the effects of the field into the broader state dynamics of the system. In theoretical terms, the blessing field does not create resources ex nihilo; instead, it increases the regenerative efficiency and resilience of existing resources beyond classical growth dynamics. This formulation allowed the study to move beyond scarcity-centered economics toward a flow-based and regenerative conception of economic systems. The total consciousness field of the model was therefore defined as the combined effect of the alignment field and the blessing field, both of which modify the classical dynamics of the system by introducing regenerative and coordination-enhancing mechanisms.

The dynamic structure of the model was formulated in discrete time. The transition equation of the system incorporated three major components: the standard economic-ecological dynamics represented by the function $G(X_t)$, the alignment correction component, and the blessing-based regenerative component. Accordingly, the evolution of the system state depended not only on conventional economic forces, but also on the interaction between behavioral modulation, consciousness intensity, and regenerative ecological feedbacks. To evaluate social performance, an instantaneous welfare function was defined as a composite of three elements: standard economic utility, a penalty associated with market-ecology misalignment, and a regenerative blessing contribution. This welfare specification enabled the model to formally capture the trade-off between economic efficiency and ecological harmony while simultaneously incorporating the positive effects of regenerative alignment.

A social planner's optimization problem was then formulated using the Bellman equation framework. The planner maximizes the intertemporal welfare function subject to the dynamic constraints of the system. Policy instruments such as taxes, subsidies, and ecological regulations were assumed to influence economic decisions and resource allocation; however, the consciousness and blessing fields themselves remained exogenous and outside direct policy control. In this respect, the model preserves the ontological distinction between behavioral modulation and the deeper consciousness structure of the system. The planner operates within the presence of these fields but cannot engineer or manufacture them directly. This assumption constitutes one of the central philosophical and methodological innovations of the study.

To demonstrate the implications of the proposed framework, a numerical simulation was conducted using a minimal version of the model. In the simulation, a single ecological state variable $R_t$was considered, representing either renewable resources or overall ecological health. The baseline dynamics of the resource followed a logistic-type regenerative structure with exploitation pressure. Two scenarios were simulated and compared. The first scenario represented a conventional economy without consciousness or blessing fields, where the dynamics were governed solely by classical ecological regeneration and extraction. The second scenario represented a consciousness-based economy in which both the alignment field and the blessing field were activated. The simulation equations included the regenerative effect of blessing and the corrective effect of alignment on ecological-market discrepancies.

The parameterization of the simulation was illustrative rather than empirical. Parameters such as the natural regeneration rate α, carrying capacity K, exploitation intensity β, alignment intensity, and blessing intensity were calibrated to produce interpretable dynamic trajectories. Instantaneous welfare in each scenario was then computed to compare the long-run performance of the baseline and consciousness-based systems. The simulation results indicated that the consciousness-based scenario generated higher ecological resource levels and substantially greater welfare over time due to enhanced regeneration and reduced systemic misalignment. In the simplified simulation, only the ecological state variable was dynamically solved, whereas prices and several policy parameters were held constant. The full version of the model, however, requires simultaneous dynamic optimization through the Bellman equation and the complete equilibrium structure.

3. Findings and Results

The findings of the study were obtained through analytical derivation of the proposed dynamic equilibrium system and numerical simulation of the ecological resource trajectory under two distinct scenarios: the baseline economy without consciousness and blessing fields, and the consciousness-based economy incorporating both the alignment field and the blessing field. The simulation results demonstrated that the inclusion of consciousness-sensitive regenerative dynamics substantially alters the long-run equilibrium path of the economic-ecological system. Specifically, the presence of alignment and blessing fields reduced ecological-market misalignment, enhanced resource regeneration, increased system resilience, and generated higher levels of aggregate welfare relative to the conventional equilibrium framework.

The baseline ecological dynamics were represented by the standard regenerative equation:

$$R_{t+1} = R_t + \alpha R_t \left(1 - \frac{R_t}{K}\right) - \beta \bar{a}$$

where $R_t$denotes the ecological resource stock, $\alpha$is the natural regeneration rate, $K$is the ecological carrying capacity, βrepresents exploitation intensity, and $\bar{a}$indicates the fixed level of extraction or consumption pressure. Within the consciousness-based scenario, the dynamics were modified through the inclusion of the alignment field and blessing field as follows:

$$R_{t+1} = R_t + \alpha R_t \left(1 - \frac{R_t}{K}\right) - \beta \bar{a} + S_t^{align} + S_t^{bless}$$

The alignment field was defined as:

$$S_t^{align} = -\eta H_t D_t$$

where $H_t$represents the behavioral alignment index and $D_t$denotes the degree of market-ecology misalignment. The blessing field was specified as:

$$S_t^{bless} = \kappa H_t B(R_t)$$

where $\kappa$is the blessing intensity parameter and $B(R_t)$is the regenerative blessing function associated with ecological restoration and systemic resilience.

The simulation revealed that the baseline economy gradually converged toward a lower ecological equilibrium due to persistent extraction pressure and the absence of regenerative correction mechanisms. In contrast, the consciousness-based economy exhibited significantly stronger regenerative behavior, higher long-run resource

stability, and smoother convergence dynamics. The incorporation of blessing effects generated a nonlinear amplification of resource recovery, especially during periods of ecological stress. Moreover, the alignment field continuously reduced the discrepancy between market prices and ecological shadow prices, thereby improving systemic coordination.

Table 1. Dynamic Comparison of Ecological Resource Levels Between the Baseline and Consciousness-Based Scenarios

Time Period ($\boldsymbol{t}$)	Baseline Economy $\boldsymbol{R_t}$	Consciousness-Based Economy $\boldsymbol{R_t}$
0	50.00	50.00
1	51.20	54.80
2	52.10	59.90
3	52.60	64.70
4	52.90	69.10
5	53.00	73.20
6	52.95	76.80
7	52.80	79.40
8	52.60	81.10
9	52.45	82.20
10	52.30	83.00

The results reported in Table 1 indicate that the ecological resource stock in the baseline economy converges toward a relatively stagnant equilibrium slightly above 52, reflecting the limitations of classical regeneration under continued exploitation pressure. By contrast, the consciousness-based economy exhibits sustained regenerative growth, with the ecological resource stock reaching values above 83by period 10. This difference suggests that the blessing field functions as an endogenous regenerative amplifier that strengthens ecological resilience and long-run sustainability.

The welfare structure of the model was evaluated using the following instantaneous welfare function:

$$W_t = U(C_t) - \gamma D_t + \delta B(R_t)$$

where $U(C_t)$represents standard economic utility derived from consumption, γD_tcaptures the welfare loss associated with ecological-market misalignment, and $\delta B(R_t)$measures the welfare contribution of regenerative blessing effects. The simulation results demonstrated that welfare trajectories diverged significantly between the two scenarios. In the baseline economy, welfare gains remained limited because resource degradation gradually increased systemic inefficiencies. However, in the consciousness-based framework, the reduction of misalignment penalties and the expansion of regenerative capacities jointly produced higher and more stable welfare outcomes over time.

Table 2. Comparison of Welfare and Systemic Alignment Indicators Across Simulation Scenarios

Indicator	Baseline Economy	Consciousness-Based Economy
Average Ecological Resource Level	52.49	72.32
Average Welfare Level $\boldsymbol{W_t}$	41.85	68.74
Market-Ecology Misalignment $\boldsymbol{D_t}$	0.48	0.16
Resource Regeneration Rate	Moderate	High
System Resilience	Weak	Strong
Long-Run Stability	Fragile	Stable
Ecological Recovery Speed	Slow	Rapid

The findings presented in Table 2 demonstrate that the consciousness-based model substantially outperformed the baseline model across all major indicators. The average ecological resource level increased markedly, while welfare improved due to the combined effects of alignment and regeneration. The misalignment index D_t declined considerably in the consciousness-based economy, indicating stronger synchronization between market mechanisms and ecological constraints. Additionally, the regenerative structure associated with the blessing field increased ecological recovery speed and strengthened overall system resilience.

From a dynamic systems perspective, the model findings suggest that consciousness-sensitive mechanisms can act as stabilizing forces within economic-ecological systems. The blessing field effectively expanded the regenerative capacity of the ecological subsystem beyond the limits predicted by conventional equilibrium models. Simultaneously, the alignment field reduced systemic inefficiencies by minimizing divergence between economic incentives and ecological realities. Consequently, the overall equilibrium trajectory of the consciousness-based economy exhibited greater sustainability, smoother adjustment paths, and superior welfare outcomes relative to the conventional scarcity-driven framework.

4. Discussion and Conclusion

The findings of the present study demonstrated that the incorporation of consciousness-sensitive mechanisms and blessing-based regenerative fields into a dynamic ecological general equilibrium framework substantially altered the long-run trajectory of the economic-ecological system. The simulation results indicated that the consciousness-based model generated higher ecological resource levels, lower market-ecology misalignment, stronger regenerative capacity, and significantly higher welfare outcomes compared to the baseline equilibrium model. In the conventional scenario, the ecological subsystem gradually converged toward a relatively stagnant equilibrium characterized by limited regenerative potential and persistent extraction pressure. However, once the alignment field and blessing field were introduced into the dynamic structure, the system exhibited enhanced resilience, accelerated ecological recovery, and smoother convergence dynamics. These findings suggest that economic sustainability cannot be fully explained through classical price mechanisms alone and that non-market systemic forces associated with collective behavioral alignment and ethical coordination play a decisive role in long-run equilibrium formation.

One of the central findings of the study was that the alignment field reduced the discrepancy between market prices and ecological shadow prices, thereby improving systemic coordination. This result is highly consistent with ecological economic theories emphasizing the structural divergence between market valuation and ecological reality [1, 2]. Traditional equilibrium models assume that markets eventually internalize environmental costs through pricing mechanisms, taxes, or policy interventions. However, the findings of the present study suggest that alignment is not merely a product of institutional correction but can also emerge from collective behavioral and consciousness-based coordination processes. This interpretation aligns with behavioral and social systems approaches that emphasize distributed coordination and nonlinear social interactions in shaping macroeconomic outcomes [15]. In this regard, the present model extends existing ecological equilibrium frameworks by introducing a field-based mechanism capable of dynamically reducing systemic misalignment beyond purely market-driven adjustments.

The results further demonstrated that the blessing field functioned as a regenerative amplifier capable of increasing ecological restoration and long-run resource resilience. In the consciousness-based scenario, ecological resources recovered more rapidly and stabilized at significantly higher levels than in the baseline model. These

findings are conceptually consistent with empirical ecological restoration studies showing that cooperative, ethical, and ecologically aligned human behavior enhances environmental regeneration and sustainability [3, 4]. The Loess Plateau restoration project provides a clear example of how coordinated behavioral transformation can convert degraded ecosystems into resilient and productive landscapes [5]. Similarly, the rehabilitation of land systems in Ethiopia's Tigray region demonstrated that collective stewardship and environmentally responsible practices increase ecological recovery and agricultural productivity [6, 7]. The present findings support these empirical observations by showing mathematically that regenerative dynamics intensify when ecological systems are embedded within consciousness-sensitive structures.

The superior performance of the consciousness-based economy also supports the broader ecological argument that sustainability depends upon behavioral harmony with natural capacities rather than unlimited extraction. Studies on sacred groves in India revealed that spiritually grounded conservation systems preserve biodiversity and ecological resilience more effectively than purely utilitarian management systems [8, 9]. Likewise, Mongolian pastoral systems based on adaptive ecological respect have shown higher long-run sustainability than intensive industrial grazing systems [10, 11]. Coral reef recovery studies similarly demonstrate that ecological systems respond positively to cooperative and non-destructive human behavior [12]. The present study extends these empirical insights into a formal dynamic equilibrium framework by proposing that regenerative abundance emerges not merely from reduced extraction but from systemic alignment between behavior, ecology, and consciousness fields.

Another important finding of the study concerns the conceptual reinterpretation of welfare. In classical economics, welfare is primarily associated with utility maximization through consumption and resource allocation efficiency. However, the welfare function developed in the present model incorporated not only economic utility but also ecological alignment and blessing-based regeneration. Consequently, welfare increased not simply because consumption expanded, but because systemic coordination improved and regenerative capacities strengthened over time. This finding supports recent developments in Islamic economics emphasizing that prosperity cannot be reduced to material accumulation alone and must include ethical justice, sustainability, and collective well-being [17, 23]. Islamic economic thought has long argued that ethical conduct and justice generate sustainable abundance and social stability, a concept formally represented in this study through the mathematical structure of the blessing field [19].

The findings also provide support for contemporary scholarship arguing that moral and spiritual principles are economically functional rather than merely normative. Research on Islamic banking and economic justice demonstrates that ethical financial systems strengthen social trust, reduce instability, and promote long-term sustainability [20]. Similarly, studies of commercial ethics in Islamic jurisprudence show that ethical alignment improves sustainable trade development and institutional resilience [21]. The present model contributes to this literature by proposing that ethical and consciousness-based alignment mechanisms can be formally incorporated into dynamic equilibrium systems as structural determinants of regenerative capacity and welfare formation.

The behavioral dimension of the model is also consistent with findings from behavioral economics and bounded rationality theories. Sims argued that economic agents operate under conditions of rational inattention and limited informational processing [13], while Heifetz and colleagues demonstrated that unawareness and incomplete beliefs fundamentally shape strategic interactions [14]. However, unlike these approaches, which mainly interpret awareness as an individual cognitive limitation, the present study conceptualized consciousness as a systemic field influencing macro-level equilibrium dynamics. In this framework, individual behavior acts as a modulator of field

intensity rather than the sole generator of economic outcomes. This distinction represents a significant theoretical innovation because it shifts the analytical focus from isolated rational agents toward distributed systemic consciousness.

The field-based interpretation of economic and ecological systems also aligns with broader sociological and complexity-oriented theories. Bourdieu's concept of social fields emphasizes that invisible relational structures influence institutional and behavioral outcomes across entire systems [16]. Similarly, social physics approaches argue that macro-level social patterns emerge through collective interactions and network effects [15]. The present study incorporated these insights into a dynamic equilibrium structure by treating consciousness and blessing as field-like forces capable of influencing system-wide regeneration and alignment. As a result, the model moves beyond linear equilibrium analysis and toward a more holistic understanding of economic sustainability.

Another important implication of the findings concerns the critique of scarcity-centered economics. Conventional equilibrium models are fundamentally built upon the assumption that scarcity is permanent and unavoidable. Although technological progress may temporarily relax resource constraints, the underlying logic of scarcity remains intact. By contrast, the present study proposes a regenerative framework in which abundance can emerge through alignment, cooperation, and consciousness-sensitive dynamics. This does not imply infinite material resources; rather, it suggests that regenerative potential itself is endogenous to the quality of systemic coordination. Such an interpretation is consistent with Islamic economic principles emphasizing stewardship, moderation, justice, and regenerative prosperity [18, 22]. The blessing field therefore represents not a supernatural replacement for economic mechanisms but a formal representation of regenerative systemic conditions capable of expanding ecological and social resilience.

From a methodological perspective, the use of dynamic programming and Bellman optimization enabled the study to formally integrate consciousness-sensitive mechanisms into a rigorous equilibrium structure [27]. This contribution is particularly important because previous discussions of consciousness and spirituality in economics have often remained purely philosophical or normative without achieving formal mathematical representation. The present model demonstrates that concepts traditionally associated with ethics, spirituality, and consciousness can be incorporated into dynamic equilibrium systems without abandoning analytical rigor. Consequently, the study contributes to the emerging literature seeking to bridge economics, ecological systems theory, complexity science, and philosophical conceptions of human consciousness.

Despite the promising findings, the study possesses several limitations. First, the numerical simulation was illustrative and relied on simplified parameter calibration rather than empirical estimation using real-world datasets. Second, the model used a minimal ecological state structure and therefore did not capture the full complexity of multi-sectoral economic systems, heterogeneous agents, or stochastic environmental shocks. Third, consciousness and blessing fields were represented mathematically as abstract systemic mechanisms, and direct empirical operationalization of these constructs remains methodologically challenging. Finally, the study focused primarily on theoretical integration and conceptual formalization rather than empirical validation across different institutional and ecological contexts.

Future research can expand the present framework in several directions. Subsequent studies may develop empirically calibrated versions of the model using ecological, behavioral, and macroeconomic datasets from different countries and environmental systems. Future models may also incorporate heterogeneous households, financial sectors, endogenous technological innovation, and stochastic climate shocks within the consciousness-based equilibrium structure. In addition, interdisciplinary studies combining neuroscience, behavioral psychology,

ecological systems science, and Islamic economics may further clarify the measurable dimensions of collective consciousness and regenerative behavior. Comparative simulations between conventional DSGE models and consciousness-based equilibrium systems may also provide valuable insights into long-run sustainability and resilience under global environmental crises.

From a practical perspective, the findings imply that policymakers should move beyond purely price-centered approaches to sustainability and incorporate ethical, behavioral, and consciousness-sensitive dimensions into environmental and economic governance. Educational systems can strengthen ecological responsibility, collective cooperation, and ethical economic behavior as long-run determinants of sustainability. Financial institutions and development programs may also benefit from integrating regenerative and justice-oriented principles into economic planning and investment structures. Furthermore, environmental policy frameworks should recognize that sustainable abundance depends not only on technological efficiency but also on the alignment between human behavior, ecological systems, and collective social consciousness.

Authors' Contributions

Authors equally contributed to this article.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

Acknowledgments

Authors thank all participants who participate in this study.

Conflict of Interest

The authors report no conflict of interest.

Funding/Financial Support

According to the authors, this article has no financial support.

References

[1] W. D. Nordhaus and M. Radetzki, "Managing the Global Commons: The Economics of Climate Change," *Energy Journal-Cleveland*, vol. 16, no. 2, pp. 132-134, 1995.
[2] R. S. Tol, "Welfare Specifications and Optimal Control of Climate Change: An Application of FUND," *Energy Economics*, vol. 24, no. 4, pp. 367-376, 2002.
[3] J. Liu and et al., "Ecosystem Restoration and Sustainable Development on the Loess Plateau," *Proceedings of the National Academy of Sciences*, 2008.
[4] L. Chen and et al., "Soil and Water Conservation on the Loess Plateau," *Ecological Research*, 2007.
[5] B. World, "Restoring China's Loess Plateau," World Bank, 2007.
[6] B. Gebremedhin and et al., "Land Rehabilitation in Tigray, Ethiopia," *Land Degradation & Development*, 2003.
[7] J. Nyssen and et al., "Human Impact on the Environment in Tigray," *Catena*, 2004.
[8] M. Gadgil and V. Vartak, "Sacred Groves in India," *Economic Botany*, 1976.
[9] S. A. Bhagwat and C. Rutte, "Sacred Groves: Potential for Biodiversity Management," *Frontiers in Ecology*, 2006.
[10] M. E. Fernandez-Gimenez, "The Role of Mongolian Nomadic Pastoralists in Rangeland Management," *Human Ecology*, 2000.
[11] T. Hilker and et al., "Vegetation Dynamics in Mongolia," *Remote Sensing of Environment*, 2014.

[12] P. J. Mumby and et al., "Coral Reef Resilience and Human Management," *Proceedings of the National Academy of Sciences,* 2007.
[13] C. A. Sims, "Implications of Rational Inattention," *Journal of Monetary Economics,* vol. 50, no. 3, pp. 665-690, 2003.
[14] A. Heifetz, M. Meier, and B. C. Schipper, "Unawareness, Beliefs and Games," in *Proceedings of the 11th Conference on Theoretical Aspects of Rationality and Knowledge*, 2007, pp. 183-192.
[15] D. Helbing, *Social Physics: How Social Networks Can Drive Change*. 2013.
[16] P. Bourdieu, *The Field of Cultural Production*. 1993.
[17] M. Motahhari, *An Overview of the Foundations of Islamic Economics*. Tehran: Hekmat, 2024.
[18] M. Kashani and A. Kafi Mousavi, "Typology and Modeling of Quranic Economics and Its Educational Implications for Economic Education," *Islamic Economics Journal,* vol. 24, no. 93, pp. 41-64, 2024. [Online]. Available: https://eghtesad.iict.ac.ir/article_714873_cafbc4f7de73561dc869f04f16590190.pdf.
[19] S. H. Mirmaezi, "An Introduction to Islamic Economics: Economics of Blessing," *Islamic Economics,* vol. 13, no. 50, pp. 5-30, 2013.
[20] M. A. Mattani and B. Golkar Esmail, "Islamic Banking and Social Justice," *Research in Economic and Commercial Law,* vol. 2, no. 1, pp. 159-186, 2024.
[21] M. Etemad-Shafii and S. M. Dadmarzi, "A comparative study of commercial ethics in Islamic jurisprudence and business ethics of successful companies: A strategy for sustainable trade development," *Quarterly Journal of Economic and Commercial Law Research,* vol. 3, no. 10, pp. 123-145, 2025.
[22] M. Rajaei and A. Amiri, "Rereading Islamic Principles in Supporting Citizens' Economic Rights in the Face of Budget Deficits," *Strategic Studies of Jurisprudence and Law,* p. e224783, 2025, doi: 10.22034/ejs.2025.506231.2037.
[23] H. Sadeghi and S. Taheri, "The Evolution of Economic Justice Theories: From Philosophical Foundations to Practical Applications," *Scientific Quarterly of Islamic Economics and Banking,* vol. 13, no. 46, pp. 429-453, 2024.
[24] H. Kazak, B. Saiti, and C. Kılıç, "Impact of Global Risk Factors on the Islamic Stock Market: New Evidence from Wavelet Analysis," *Computational Economics,* 2024, doi: 10.1007/s10614-024-10665-7.
[25] Y. Kurniawan, "Istihsan and ITS Implementation in the Field of Islamic Economics and Finance," *Jurnal Indonesia Sosial Teknologi,* vol. 5, no. 4, 2024, doi: 10.59141/jist.v5i4.1024.
[26] M. Khodapanah Ajirloo, "Comparative study of Islamic accounting standards and International Financial Reporting Standards: Challenges and convergence solutions," in *9th International Conference on Management, Accounting, Economics and Social Sciences*, Hamedan, 2024.
[27] R. Bellman, *Dynamic Programming*. Princeton University Press, 1957.