

Green Economy and Public Sector Innovation: A Narrative Review of Global Transitions

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ABSTRACT: This study presents a narrative review of global and local practices in advancing sustainable development through green economy policies, health literacy initiatives, and digital transformation in the public sector. The aim of the review was to synthesize empirical and theoretical contributions to understand the enabling and constraining factors that shape sustainability outcomes. Literature was systematically collected from Scopus, Web of Science, and Google Scholar using keyword combinations such as “green economy,” “health literacy,” and “digital transformation,” with inclusion criteria focusing on peer-reviewed articles published between 2018 and 2024. A total of 126 articles were reviewed after screening 312 records. The results reveal that sustainability has emerged as a central policy and research theme, with evidence showing that green finance, carbon pricing, and stakeholder engagement significantly enhance ecological and economic performance. Comparative insights highlight that developed nations benefit from robust infrastructure and regulatory frameworks, while developing countries face systemic challenges including financial limitations, policy uncertainty, and social inequalities. The discussion underscores the importance of multisectoral collaboration, public education, and fiscal instruments in overcoming these barriers. However, gaps remain in the literature, particularly regarding long-term impacts and the experiences of marginalized populations. The review concludes that advancing sustainable development requires integrative strategies that combine ecological, economic, and social dimensions, with future research needed to explore innovative and inclusive approaches that ensure equitable progress.

Keywords: Green Economy, Sustainable Development, Health Literacy, Digital Transformation, Stakeholder Participation, Green Finance, Policy Integration.



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INTRODUCTION

The discourse on sustainable development has increasingly emphasized the intersection of environmental sustainability, economic resilience, and social equity. Central to this evolving paradigm is the concept of the green economy, which aims to harmonize economic growth with

ecological preservation. Green economy policies have been promoted globally as transformative pathways to address climate change, environmental degradation, and resource scarcity while simultaneously generating economic opportunities and fostering social well-being (Fu et al., 2024; Ostapenko et al., 2024; Heshmati, 2018). The urgency of this agenda is underscored by the persistent ecological crises and socio-economic inequalities that compel both governments and private actors to explore new strategies that balance growth with sustainability. Similarly, public health literacy and the digital transformation of the public sector have emerged as critical domains intersecting with green economy objectives, as they underpin inclusive governance and informed citizen participation in sustainability initiatives (Watts et al., 2023).

Recent empirical studies highlight the profound impact of green economy initiatives at both local and global scales. Countries across diverse regions have increasingly adopted policy frameworks designed to facilitate the transition toward sustainability. For instance, carbon taxes, green finance mechanisms, and investments in renewable technologies have been shown to influence household and industrial decision-making, thereby contributing to reductions in energy consumption and greenhouse gas emissions (Putri et al., 2024; Gu et al., 2024; Chen et al., 2024). In China, the implementation of green financial policies has directly supported the growth of sustainable tourism, demonstrating how localized strategies can contribute to broader sustainable development goals (Fu et al., 2024). These findings reinforce the significance of embedding sustainability within financial and policy systems as a means of aligning local development trajectories with global environmental commitments (Sadik-Zada & Gatto, 2023).

Basic data further affirm the global momentum toward green growth. For example, investment in renewable energy has consistently outpaced investments in fossil fuels over the past decade, reflecting a structural transformation in global energy markets (Chen et al., 2024). According to international reports, countries that have enacted carbon pricing mechanisms have recorded measurable reductions in emissions, underscoring the efficacy of market-based instruments in environmental governance (Putri et al., 2024). At the same time, global institutions such as the United Nations have positioned sustainable development goals (SDGs) as guiding frameworks, encouraging member states to integrate sustainability into national policies. These efforts signal a recognition that economic competitiveness and environmental stewardship are not mutually exclusive, but rather interdependent objectives that shape the resilience of contemporary societies (Sadik-Zada & Gatto, 2023).

Nevertheless, significant challenges persist. A central obstacle lies in the gap between policy commitments and practical implementation. While many governments publicly endorse sustainability objectives, entrenched reliance on environmentally harmful practices continues to undermine progress. This policy-practice disjunction is particularly evident in contexts where industrial expansion and short-term economic gains are prioritized over long-term ecological considerations (Sadik-Zada & Gatto, 2023). Moreover, economic uncertainty and institutional inertia complicate the adoption of green technologies, creating barriers for industries and public institutions seeking to align with sustainability targets (Šafář et al., 2022). These issues are compounded by social inequalities, which constrain marginalized communities' ability to benefit from green economy initiatives and exacerbate disparities in access to sustainable infrastructure (Hernández-Delgado, 2024).

Technological and governance-related barriers further complicate this landscape. The digital transformation of the public sector, while offering opportunities for enhanced efficiency and citizen engagement, remains uneven across regions. In many developing economies, limited infrastructure, digital divides, and resistance to organizational change hinder the realization of digital governance systems capable of supporting sustainability agendas (Buseth & Bergius, 2019). Additionally, the diffusion of green innovations often encounters resistance due to high upfront costs, inadequate policy incentives, and limited knowledge transfer mechanisms. These constraints illustrate the systemic nature of the challenges confronting green economy transitions, necessitating coordinated efforts across multiple levels of governance and sectors of society.

Literature reviews reveal persistent gaps in understanding the interface between theory and practice. While numerous policy frameworks have been conceptualized to advance sustainability, empirical evidence suggests that implementation often falls short of expectations (Gibbs & O'Neill, 2015). This disconnect has been observed in various contexts, such as the United Kingdom's green development policies, where organizational cultures and political stagnation have impeded substantive progress (Gibbs & O'Neill, 2015; Watts et al., 2023). The lack of integrative studies that capture both policy-level aspirations and on-the-ground realities underscores the need for research approaches that bridge this divide. Such integration is critical to informing policy design that is both context-sensitive and practically viable (Afridi et al., 2023).

The present narrative review is therefore designed to address this gap by synthesizing global and local practices related to the green economy, health literacy, and digital transformation in the public sector. Its primary objective is to identify best practices in the adoption of sustainable strategies while critically evaluating the challenges encountered by diverse stakeholders (Fu et al., 2024). Unlike studies that narrowly focus on quantitative assessments or isolated case analyses, this review seeks to provide a holistic perspective on the complex interrelations shaping sustainable development. By adopting an integrative approach, the review aims to advance scholarly and policy-oriented discussions on how green economy initiatives can be effectively operationalized within different socio-political and economic contexts (Ye et al., 2024).

The scope of this review encompasses a diverse range of geographical and sectoral contexts. While much of the existing literature has centered on advanced economies and large-scale industries, this study emphasizes the importance of exploring underrepresented regions and populations. For instance, rural communities and small-scale enterprises in developing countries face distinct sustainability challenges that are often overlooked in mainstream analyses (Zinzani, 2023; Putri et al., 2024). Evidence suggests that these communities frequently encounter infrastructural and financial barriers that limit their capacity to engage in green practices, despite being disproportionately affected by environmental degradation (Walia et al., 2022). By foregrounding such contexts, this review underscores the need for inclusive approaches that prioritize equity and local perspectives in the pursuit of sustainable development (Lübker et al., 2020; Raman et al., 2023).

METHOD

The methodology for this narrative review was designed to ensure comprehensive coverage of scholarly literature relevant to the interrelated domains of the green economy, health literacy, and digital transformation in the public sector. Unlike systematic or scoping reviews, this narrative approach emphasizes interpretive synthesis over quantitative aggregation, suitable for exploring conceptual linkages across disciplines. Given the complex and multidisciplinary nature of these topics, it was essential to establish a rigorous and transparent process for identifying, selecting, and evaluating the most relevant studies. The methodological framework adopted in this study prioritizes breadth and depth of coverage while adhering to academic standards for systematic literature reviews. By drawing from multiple databases, applying precise keyword strategies, and defining clear inclusion and exclusion criteria, the review aimed to consolidate empirical and theoretical evidence that illuminates both global and local perspectives on sustainable development.

The first stage of the review involved the identification of appropriate databases to serve as the primary sources of literature. The initial search retrieved 312 records (Scopus: 146, Web of Science: 128, Google Scholar: 38), from which duplicates were removed and 126 articles retained for full-text analysis. Scopus and Web of Science were prioritized due to their comprehensive indexing of peer-reviewed journals and their established credibility in academic publishing (Mahajan et al., 2024; Watts et al., 2023). These platforms are particularly valuable because they ensure access to high-quality, peer-reviewed articles that meet rigorous publication standards. In addition, Google Scholar was used as a supplementary source to capture materials not always indexed in traditional academic databases, such as doctoral dissertations, working papers, and conference proceedings. The inclusion of Google Scholar provided a broader horizon of references, thereby reducing the risk of overlooking valuable insights from emerging or non-traditional sources of knowledge. Together, these databases offered a balanced and robust foundation for capturing diverse scholarly perspectives on the research topics.

The second stage focused on the formulation of keyword strategies. Keywords were selected based on their relevance to the three central themes of this review: green economy, health literacy, and digital transformation. To refine searches and maximize relevance, Boolean operators were employed to construct combinations of terms. For example, searches such as “green economy AND sustainability,” “health literacy OR education,” and “digital transformation AND public sector” were used to ensure inclusivity and specificity. This allowed the review to capture literature that addressed the core concepts while also incorporating related subtopics such as environmental governance, public health policy, digital governance, and sustainable practices. Temporal filters were also applied to limit the search results to studies published between 2018 and 2024. This time frame was chosen to prioritize the most recent developments in theory, policy, and practice, ensuring the review’s findings reflected the current state of research and ongoing debates in the field (Lü & Park, 2022; Ye et al., 2024; Nuaimi et al., 2020).

In addition to keyword and temporal filters, several practical considerations were applied to enhance the relevance and quality of the results. Searches were restricted to articles written in English to maintain consistency and comparability across sources, given the dominance of English in academic publishing. Furthermore, only peer-reviewed journal articles and literature reviews

were included in the initial selection pool, as these document types provide the most reliable and methodologically sound contributions to scholarly discourse. Excluding non-peer-reviewed materials, such as opinion pieces or editorials, was necessary to ensure that the evidence base was grounded in academic rigor. Conference proceedings and grey literature were included only when they offered unique insights not available in journal articles, thereby serving as supplementary rather than primary sources.

The third stage of the methodology involved establishing inclusion and exclusion criteria to guide the selection process. Studies were included if they directly addressed at least one of the three thematic areas—green economy, health literacy, or digital transformation in the public sector—and demonstrated relevance to the overarching topic of sustainable development. Articles that presented empirical evidence, such as case studies, cross-national comparisons, and econometric analyses, were particularly valued for their capacity to illustrate practical applications and outcomes. Studies that were purely theoretical were also considered, provided they contributed conceptual frameworks or models that could enhance the interpretation of empirical findings (Liu & Wang, 2022; Khoshnava et al., 2019). Exclusion criteria were equally important. Articles were excluded if they were published before 2018, were not written in English, or lacked substantive focus on the key themes. Duplicates retrieved across multiple databases were removed to prevent redundancy, and studies deemed tangential—such as those focusing exclusively on unrelated aspects of environmental science or digital technology without addressing governance or sustainability—were not included.

The review further considered the type of studies to be included in order to ensure comprehensive representation of research designs. Randomized controlled trials, where relevant in the context of health literacy interventions, were included alongside cohort studies, case studies, and comparative policy analyses. For research on the green economy and digital transformation, case studies and cross-national comparisons were particularly valuable, as they provided contextual insights into how policies and practices unfold in different socio-economic and institutional environments. By incorporating a mix of quantitative, qualitative, and mixed-methods research, the review sought to capture a holistic understanding of the topics and mitigate the limitations associated with relying solely on one methodological approach.

The process of screening and evaluation was conducted in several phases to ensure consistency and reduce bias. Titles and abstracts were first reviewed to assess relevance against the inclusion criteria. Articles that passed this preliminary screening were then examined in full text, with particular attention given to the methodological rigor, clarity of findings, and alignment with the objectives of this review. Studies that demonstrated weak methodological design, lacked empirical grounding, or presented findings unrelated to the themes were excluded at this stage. The final pool of literature was evaluated based on both quality and relevance, ensuring that the body of evidence represented the most significant contributions to the understanding of green economy policies, health literacy, and digital transformation. To enhance transparency, the review process was documented, including records of search terms, databases consulted, and reasons for excluding specific studies. This documentation strengthens the replicability of the review and upholds academic integrity. Although this study did not require ethical clearance, it addressed potential publication bias by including both indexed and grey literature sources and documenting all exclusion decisions to ensure representativeness and transparency.

Finally, the analysis of the selected literature was conducted through thematic synthesis using NVivo 14 software. Themes were coded inductively by two independent reviewers, with inter-rater reliability (Cohen's $\kappa = 0.87$) confirming consistency in interpretation. This approach facilitated the integration of insights from diverse research traditions and geographic contexts, enabling a nuanced understanding of how green economy policies, health literacy, and digital transformation intersect within the broader framework of sustainable development. Moreover, the thematic synthesis allowed the review to not only summarize existing evidence but also critically evaluate gaps and inconsistencies in the literature, thereby laying the foundation for a robust discussion of findings in subsequent sections.

In summary, this methodology reflects a deliberate and systematic approach to literature review, combining comprehensive database searches, carefully formulated keyword strategies, and rigorous screening processes. By adhering to defined inclusion and exclusion criteria and incorporating a range of study designs, the review ensured that the evidence base is both reliable and representative of the multidisciplinary nature of the research questions. The integration of thematic synthesis as the analytical strategy further reinforces the ability of this study to provide meaningful insights into global and local practices related to the green economy, health literacy, and digital transformation in the public sector.

RESULT AND DISCUSSION

The findings of this narrative review reveal several dominant themes that underscore the importance of sustainability, stakeholder participation, and the integration of technological and policy innovations across sectors. The literature consistently emphasizes that the transition toward a green economy, the advancement of health literacy, and the digital transformation of the public sector are interdependent components of broader sustainable development goals. The results are organized into three interrelated sub-sections: key themes, specific influencing factors, and global perspectives. Each of these categories illustrates how research has converged on the notion that sustainability is a multidimensional endeavor requiring both global coordination and localized adaptation. The literature reviewed included both foundational and recent empirical contributions (2018–2024), ensuring balanced coverage and critical depth.

The first major theme identified in the literature is the centrality of sustainability as a guiding principle in contemporary policies and practices. Studies consistently point to the adoption of green economy principles as essential to achieving the United Nations' Sustainable Development Goals (SDGs), with green investment and sustainable practices at the forefront of policy reforms (Mahajan et al., 2024; Fu et al., 2024). A recurrent finding is that successful green initiatives often rely on multisectoral collaboration, where governments, private enterprises, and civil society actors collectively contribute to designing and implementing strategies (Ye et al., 2024). This collaborative dimension ensures that sustainability measures are not isolated efforts but part of systemic change involving cross-sectoral coordination.

Empirical evidence substantiates the importance of these initiatives. Fu et al. (2024), for instance, highlight how green finance initiatives in China have directly boosted the sustainable tourism sector, reinforcing the linkage between financial innovation and ecological stewardship. Similarly,

Ulya et al. (2023) document how green economy adoption in Indonesia has led to measurable improvements in resource efficiency and reductions in carbon emissions, showcasing the tangible benefits of policy interventions in emerging economies. These quantitative findings demonstrate the practical outcomes of green economy transitions, underscoring the measurable benefits of integrating sustainability into both economic and social structures.

In addition to these macro-level insights, studies provide specific data reflecting the growing prioritization of green investments globally. Reports indicate that financial commitments to renewable energy technologies have surpassed those directed toward fossil fuels, signaling a structural realignment in global markets (Chen et al., 2024). Investments in low-carbon technologies and infrastructure have been shown to yield dual benefits: promoting economic competitiveness while simultaneously reducing ecological footprints. This duality further demonstrates the interdependence of economic growth and sustainability, as countries seek to align their development trajectories with global commitments under the Paris Agreement and the SDGs (Sadik-Zada & Gatto, 2023).

Beyond the identification of sustainability as a central theme, the literature also emphasizes the importance of stakeholder participation. Ye et al. (2024) argue that societal acceptance of green initiatives is critical to their success, as policies lacking local engagement often encounter resistance. Fu et al. (2024) reinforce this view by showing how the involvement of community stakeholders in the design of sustainable tourism policies in China significantly improved policy uptake and outcomes. These findings highlight that sustainability is not simply a technical or financial issue but also a social one, requiring collective action and community engagement to achieve long-term success.

The second major set of findings pertains to specific factors influencing the green economy, health literacy, and digital transformation. The literature identifies economic, social, political, and technological dimensions as central determinants of successful transitions. Economically, the availability of financial resources and the presence of investment opportunities are critical. For instance, Ulya et al. (2023) note that financial support from government-backed initiatives in Indonesia provided the necessary conditions for industries to adopt green practices, leading to reductions in emissions and improvements in efficiency. Social factors, such as public awareness and receptivity to green innovations, are equally influential. Ye et al. (2024) show that regions with higher levels of environmental awareness tend to adopt sustainable practices more readily, while areas lacking educational outreach experience slower transitions.

Political factors emerge as another critical determinant. Governments with well-defined sustainability frameworks and strong regulatory mechanisms are generally more successful in implementing green economy policies (Ulya et al., 2023). For example, stringent building regulations in the United Kingdom facilitated the rapid adoption of zero-carbon construction practices, as documented by Gibbs and O'Neill (2015). By contrast, countries with weaker institutional capacities often struggle to enforce environmental standards, resulting in fragmented or ineffective policy implementation. Technological innovation also plays a pivotal role, with studies noting that the adoption of digital tools, clean technologies, and renewable energy systems enhances efficiency and reduces waste (Lü & Park, 2022). This technological dimension is

particularly relevant in contexts where digital transformation intersects with public sector reforms, enabling governments to implement and monitor sustainability initiatives more effectively.

However, the influence of these factors varies across contexts, particularly between developed and developing nations. In developed economies, advanced infrastructure and established regulatory frameworks facilitate the rapid adoption of green technologies. For instance, Freed et al. (2020) highlight how European nations have integrated sustainability into agricultural practices with considerable success, driven by strong political support and funding mechanisms. In contrast, developing countries often face financial and infrastructural barriers, requiring greater reliance on international aid and multilateral partnerships (Nuaimi et al., 2020; Freed et al., 2020). Khan et al. (2021) observe that in many developing regions, the implementation of green innovations is hindered by socio-economic challenges such as limited access to education, inadequate infrastructure, and insufficient domestic funding.

The global perspective offers further insights into these variations. Comparative studies illustrate that while developed countries like the United Kingdom have benefited from structured policies and institutional support for sustainable practices, many developing countries continue to face significant obstacles. Gibbs and O'Neill (2015) emphasize how regulatory structures in the UK have supported innovations in green construction, facilitating progress toward carbon neutrality. In contrast, Nwachukwu (2023) underscores the challenges in sustainable agriculture across developing countries, where limited access to technology and financial support constrains the integration of green practices. These disparities underscore the uneven capacity of countries to adopt sustainability measures, highlighting the importance of tailoring approaches to specific socio-economic contexts.

Best practices identified in the literature provide guidance for bridging these gaps. Fu et al. (2024) illustrate how stakeholder engagement in China's tourism sector improved outcomes by aligning green policies with local needs. Ahmed et al. (2021) emphasize the role of sustainable business models in achieving SDGs, showing that businesses adopting green strategies not only achieve competitive advantage but also contribute positively to broader societal goals. Fiscal incentives have also proven effective, with Walia et al. (2022) documenting how environmentally friendly agricultural practices in India were facilitated through government subsidies and incentives. These examples reinforce the notion that successful transitions are achieved when policy frameworks integrate financial, social, and institutional dimensions in a mutually reinforcing manner.

The role of international collaboration also emerges as a recurring theme. Ostapenko et al. (2024) highlight how harmonized policies across countries facilitate knowledge transfer and technology sharing, thereby accelerating global sustainability transitions. Similarly, Chen et al. (2024) show that cross-border initiatives in green finance have generated positive spillovers by fostering investment in environmentally sustainable infrastructure. These collaborative frameworks underscore the global interconnectedness of sustainability challenges and the necessity of coordinated responses.

Taken together, the findings reveal that while sustainability is a universally recognized priority, the pathways to achieving it vary significantly across contexts. Developed nations benefit from established institutional frameworks and advanced infrastructure, whereas developing nations must navigate complex socio-economic barriers that necessitate adaptive and inclusive strategies. Stakeholder participation, fiscal incentives, and international collaboration emerge as crucial

enablers of success. Ultimately, these results affirm that the transition to a green economy, enhanced health literacy, and digital public sector transformation requires integrative approaches that address economic, social, political, and technological dimensions simultaneously. The global evidence base demonstrates both the opportunities and challenges of implementing sustainable practices, offering valuable lessons for policymakers and practitioners aiming to achieve long-term sustainability.

The findings of this review demonstrate strong interconnections between the adoption of green economy principles, health literacy initiatives, and the digital transformation of the public sector, all of which align with broader international frameworks such as the United Nations' Agenda 2030 and the Horizon 2020 program. These frameworks emphasize the importance of sustainability and inclusivity as central policy objectives and serve as theoretical underpinnings that inform national and local practices worldwide (Mahajan et al., 2024). In this context, the literature not only provides evidence of the benefits associated with these initiatives but also highlights how the translation of theory into practice requires systemic changes and collaborative governance mechanisms. Studies such as those by Gibbs and O'Neill (2015) underscore that sustainable growth demands a fundamental restructuring of traditional models of urban development, including the promotion of low-carbon zones and regulatory innovations. By situating current findings within these theoretical discourses, the review affirms that sustainability transitions are inseparable from the reconfiguration of policy and institutional frameworks.

A critical observation is that while theoretical models of sustainable development often emphasize inclusivity and systemic transformation, empirical findings demonstrate variability in how these principles are implemented across contexts. For instance, Watts et al. (2023) document that the management of sustainable resources in practice is frequently shaped by political priorities and institutional constraints, suggesting that the realization of theoretical ideals is contingent upon local governance structures. This insight points to the value of multi-stakeholder approaches in aligning theoretical constructs of social change with practical outcomes, where collective action serves as a bridge between policy aspirations and community-level realities (Ye et al., 2024). Thus, the integration of theory and practice requires a nuanced understanding of local dynamics while maintaining fidelity to broader global sustainability commitments.

Systemic factors emerged in the review as both barriers and enablers in advancing green economy and digital transformation agendas. Among the most prominent obstacles is limited access to financial and technological resources, a challenge that disproportionately affects developing nations. Bell (2017) highlights how political uncertainty, competing policy priorities, and conflicts of interest among stakeholders frequently stall or dilute the impact of green policies. Such systemic constraints are particularly acute in regions where institutional capacity is weak, rendering policy enforcement inconsistent or ineffective. This resonates with findings from Khan et al. (2021), who observed that inadequate infrastructure and socio-economic inequalities undermine the uptake of green innovations in developing economies. These systemic barriers illustrate how structural inequities hinder the ability of nations to fully engage with sustainability agendas, reinforcing global disparities.

On the other hand, systemic support mechanisms have been identified as critical drivers of success. Strong government commitment, effective training systems, and the design of incentive structures

that reward sustainable practices are consistently cited as enablers of sustainability transitions (Walia et al., 2022). For instance, the integration of sustainability into agricultural production in India, supported by government-backed subsidies, has demonstrated the potential for policy-practice synergies to improve resource efficiency and promote resilience (Walia et al., 2022). Similarly, international cooperation in areas such as green finance has been shown to facilitate the transfer of knowledge and resources across borders, thereby mitigating some of the systemic limitations that constrain local capacities (Chen et al., 2024). These findings underscore the importance of designing policies that are responsive not only to ecological imperatives but also to social and institutional contexts.

The interaction between systemic barriers and enablers further reveals how uneven progress can be across different regions. Developed economies, with established infrastructure and regulatory environments, are often better positioned to leverage green technologies and digital innovations (Freed et al., 2020). In contrast, developing countries must rely heavily on external financing and technical assistance to adopt similar measures. Nuaimi et al. (2020) emphasize that international aid and multilateral partnerships play an indispensable role in bridging these disparities. However, reliance on external support also creates vulnerabilities, as sustainability initiatives in these contexts can be destabilized by shifts in global economic conditions or donor priorities. This suggests that systemic resilience must be built through capacity development and institutional strengthening within developing nations, ensuring that sustainability efforts are not only externally driven but also locally anchored.

The literature provides several recommendations that point toward potential solutions to the systemic challenges identified. One prominent strategy is fostering greater collaboration between public, private, and civil society actors to develop inclusive policies that respond to local needs while aligning with global sustainability goals. Fu et al. (2024) highlight the significance of financial innovation in advancing sustainable tourism in China, demonstrating that collaborative frameworks that integrate financial institutions, local governments, and communities can generate positive outcomes. Mulaessa and Lefen (2021) similarly emphasize that green finance instruments are crucial for mobilizing resources toward sustainability, particularly in contexts where traditional funding channels are limited. These examples show that systemic obstacles can be mitigated by leveraging cross-sectoral synergies and creating institutional arrangements that foster shared responsibility.

Education and public awareness campaigns also emerge as critical tools in overcoming systemic barriers. Ye et al. (2024) argue that societal receptivity to sustainability initiatives is strongly correlated with levels of environmental awareness, which in turn are shaped by educational systems and media outreach. Empowering citizens with knowledge about the benefits of green practices and digital innovations can generate grassroots support, reducing resistance and enhancing policy uptake. This finding echoes Ulya et al. (2023), who demonstrate that sustainable agricultural practices such as coffee agroforestry in Indonesia can deliver both environmental and economic benefits when local communities are adequately informed and engaged. Public education not only facilitates the adoption of sustainable practices but also reinforces accountability by ensuring that citizens are active participants in sustainability governance.

Technological innovation also features prominently in the recommendations advanced by the literature. As Lü and Park (2022) note, the adoption of clean technologies and digital solutions significantly enhances the efficiency of resource use and reduces waste, thereby contributing to both ecological and economic objectives. However, to realize these benefits, systemic investments are required to build the digital infrastructure necessary for widespread adoption, particularly in public sector governance. Watts et al. (2023) highlight that digital transformation can enhance transparency and efficiency in resource management, but only when governments commit to sustained capacity-building and institutional adaptation. Thus, technology must be understood not merely as a technical solution but as part of a broader systemic change requiring political will, institutional reform, and social adaptation.

Another solution proposed in the literature is the use of fiscal policy instruments such as carbon taxes to incentivize behavioral change. Putri et al. (2024) document that carbon pricing mechanisms have led to measurable reductions in emissions in contexts where they have been consistently applied, highlighting their potential as tools for aligning economic incentives with sustainability goals. However, the effectiveness of such measures depends on the presence of robust monitoring systems and mechanisms to prevent regressive impacts on low-income populations. This underscores the importance of designing fiscal instruments that are not only effective but also equitable, balancing the need for environmental protection with social justice considerations.

Despite the breadth of research reviewed, several limitations within the current literature were identified. Many studies adopt short-term perspectives that do not adequately capture the long-term impacts of green economy policies and digital transformations. For example, while Ulya et al. (2023) provide valuable insights into the immediate benefits of green agricultural practices, further longitudinal studies are needed to understand their sustainability over decades. Additionally, the predominance of research focused on developed economies creates gaps in knowledge about the unique challenges faced by marginalized communities and developing regions (Zinzani, 2023). These gaps hinder the ability to design policies that are both globally informed and locally relevant.

Future research directions should therefore include deeper investigations into the long-term effects of sustainability initiatives, particularly in developing contexts where systemic barriers are most pronounced. Afridi et al. (2023) argue for more integrative studies that bridge the divide between theory and practice, capturing lived experiences and practical challenges alongside policy aspirations. Such studies would not only enrich theoretical frameworks but also provide policymakers with actionable insights for designing interventions that are both context-sensitive and evidence-based. Furthermore, research on the role of fiscal instruments such as carbon taxes in shaping public behavior, as well as on innovative technologies that enhance efficiency and inclusivity, remains essential for advancing the discourse on sustainable development.

CONCLUSION

This narrative review underscores the interrelated contributions of the green economy, health literacy, and digital transformation in advancing global sustainability. The findings reveal that

sustainability has become a central agenda across nations, producing measurable gains in energy efficiency, carbon emission reduction, and social inclusion. Effective initiatives are consistently supported by multisectoral collaboration, financial innovation, and strong stakeholder engagement, while systemic obstacles—such as limited resources, institutional weaknesses, and persistent inequality continue to hinder equitable progress. These contrasts highlight the need for both global coordination and local adaptation in achieving transformative sustainability outcomes.

Strengthening policy integration, implementing equitable fiscal mechanisms such as carbon taxes, and fostering inclusive governance structures are critical to sustaining momentum. Future research should extend beyond short-term evaluations to assess long-term impacts of green initiatives, particularly in marginalized or underrepresented regions. By aligning technological innovation, public education, and financial policy, sustainability transitions can evolve from isolated interventions into systemic social change that ensures fairness, participation, and resilience across diverse communities.

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