

Environmentally Conscious Development, Clean And Healthy Living: A Global Perspective Towards A Healthy And Sustainable Society

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Abstract

Environmentally sound development is a global paradigm that places environmental quality as a primary determinant of human health and long-term development sustainability. In the context of increasing anthropogenic pressure on the global ecosystem, the integration of environmental and health dimensions is becoming increasingly essential in the formulation of development policies. This article aims to conduct a comprehensive review of the concept, theoretical basis, implementation strategies, and various challenges in implementing environmentally sound development on a global scale, including its implications for public health and the achievement of the Sustainable Development Goals (SDGs). The method used is a *semi-systematic literature review* with a qualitative-descriptive approach, which analyzes indexed international scientific publications, global organization reports, and policy documents published between 2015 and 2025. The results of the study indicate that an environmentally based development approach contributes significantly to improving ecosystem quality and reducing the burden of disease related to environmental factors, with estimated reductions in morbidity ranging from 30% to 55% in various global intervention contexts. The successful implementation of this approach is heavily influenced by several key factors, namely the integration of environmental health monitoring systems, strengthening cross-sectoral governance, utilizing technological innovation, and active community involvement. Thus, development based on a clean and healthy environment can be seen as a fundamental prerequisite for achieving sustainable global development, while ensuring the health of current and future generations.

Key words: Sustainable Development, Clean And Healthy Environment, Environmental Health, Public Health.

BACKGROUND

Since the adoption of the Sustainable Development Goals (SDGs) in 2015, a fundamental paradigm shift has occurred in the concept of global development. Development is no longer viewed solely as increasing economic growth, but as a multidimensional process emphasizing the balance between human well-being, environmental sustainability, and intergenerational equity (United Nations, 2015; Sachs et al., 2022). This transformation is driven by growing scientific evidence demonstrating a close link between environmental degradation and the increasing global burden of disease (Whitmee et al., 2015; Landrigan et al., 2018).

According to a World Health Organization report, preventable environmental factors—such as air pollution, poor water quality, inadequate sanitation, and exposure to hazardous chemicals contribute to more than a quarter of the global disease burden and approximately 23% of premature deaths (Prüss-Ustün et al., 2016; World Health Organization, 2016). These problems are universal and not limited to developing countries, but also pose serious challenges in developed countries, particularly in urban areas experiencing pressures from industrialization, urbanization, and climate change (Fuller et al., 2022).

Furthermore, climate change further exacerbates the vulnerability of health systems through increased incidence of hydrometeorological disasters, extreme heat waves, droughts, and changes in the distribution of infectious diseases (Romanello et al., 2023). This situation emphasizes that human health is highly dependent on the condition of the global ecosystem, as

emphasized in the concept of *planetary health*, which integrates human health and environmental sustainability (Myers, 2017; Whitmee et al., 2015).

In this context, a development approach oriented toward a clean and healthy environment is becoming increasingly important as an integrative strategy linking the agendas of sustainable development, public health, and ecosystem protection. However, the implementation of this concept in various countries still faces various structural obstacles, such as policy fragmentation, the dominance of sectoral approaches, and the lack of integration of health indicators into development evaluation systems (Nilsson et al., 2018; Sachs et al., 2022). Therefore, this article aims to conduct a global literature review to identify general patterns, best practices, and cross-country challenges in implementing environmentally friendly development.

METHOD

This study employed a *semi-systematic literature review approach*, a research method that integrates the advantages of a structured *systematic review* with the flexibility of a *narrative review* to explore multidisciplinary issues. This approach allows for a more comprehensive literature synthesis, particularly on complex topics such as sustainable development and global environmental health (Snyder, 2019; Xiao & Watson, 2019). To enhance transparency and accountability in the literature selection process, this study adhered to the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA) principles, which are commonly used in evidence-based studies (Page et al., 2021).

The data sources in this study include international scientific articles indexed in reputable databases such as Scopus and Web of Science, as well as reports from global organizations such as the World Health Organization (WHO), the United Nations Environment Programme (UNEP), and the World Bank. Furthermore, relevant global and regional policy documents were analyzed to obtain a comprehensive overview of sustainable development implementation for the 2015–2025 period (World Health Organization, 2021; United Nations Environment Programme, 2019; World Bank, 2020).

Data analysis was conducted using a *thematic content analysis approach*, which allows for the systematic identification of key patterns and themes from various literature sources. The main themes analyzed include: (1) the conceptual framework for environmentally sound development; (2) implementation strategies at the global level; (3) impacts on public health; and (4) challenges and implications for cross-sectoral policies (Braun & Clarke, 2021).

RESULTS

1. Global Conceptual Framework for Environmentally Sound Development

International literature shows that environmentally sound development, promoting a clean and healthy lifestyle, is based on the integration of three main pillars: ecosystem sustainability, improving public health, and social justice. Within the Sustainable Development Goals (SDGs) framework, these three dimensions are interconnected and serve as the foundation for designing inclusive and sustainable development policies (United Nations, 2015; Sachs et al., 2022). In this context, health is positioned not only as an outcome of development but also as a crucial indicator for assessing the performance and success of development itself.

Furthermore, the environmental health approach developed by the World Health Organization (WHO) emphasizes the importance of *environmental health monitoring systems* as instruments for identifying various health risks arising from physical, chemical, and biological factors. Furthermore, these systems also play a role in evaluating the sustainability of basic services such as the provision of safe drinking water, adequate sanitation, and effective waste management (Prüss-Ustün et al., 2016; World Health Organization, 2016).

2. Global Implementation Strategy and Good Practices

Globally, environmentally conscious development is implemented through various strategies that have proven effective in various countries. One key approach is sustainable water and sanitation management, which has significantly reduced the incidence of diarrheal disease by 40–60% in developing regions, particularly in Africa and South Asia (Prüss-Ustün et al., 2016).

Furthermore, controlling air pollution in urban areas is a crucial strategy, particularly in developed countries such as Europe and North America. Implementing strict emission regulations and transitioning to clean energy have been shown to reduce the prevalence of respiratory diseases and improve people's quality of life (Fuller et al., 2022; Landrigan et al., 2018).

Another strategy is the application of circular economy concepts to waste management, such as the development of *waste-to-energy systems*, waste banks, and the use of digital technology in waste management. This approach not only increases resource efficiency but also encourages public participation in environmental management (United Nations Environment Programme, 2019).

3. Impact on Public Health

Several cross-national studies have shown that environmentally sound development interventions have a significant impact on improving public health. In general, these interventions correlate with reductions in environmentally related diseases of between 30% and 55%, depending on the social and economic conditions and effectiveness of policy implementation in each country (Prüss-Ustün et al., 2016; Romanello et al., 2023).

In addition to reducing the burden of disease, improving environmental quality also contributes to reducing the prevalence of stunting, increasing labor productivity, and strengthening community social resilience. This demonstrates that investing in environmental health has multidimensional benefits that impact not only health but also overall social and economic development (Fuller et al., 2022).

DISCUSSION

A global literature synthesis shows that environmentally sound development, promoting clean and healthy living, is a strategic approach capable of simultaneously integrating economic development, environmental protection, and improving public health. This finding reinforces the paradigm that human health is highly dependent on ecosystem quality, as emphasized in the *planetary health* and *resource nexus framework*, which examines the reciprocal relationship between environmental systems and human well-being (Whitmee et al., 2015; Romanello et al., 2023). Therefore, development success can no longer be measured solely through macroeconomic indicators but must include environmental and public health indicators as key performance measures (Sachs et al., 2022).

1. Integration of Environmental Health as an Indicator of Development Success

One of the key findings of this study is the importance of environmental health monitoring as a fundamental foundation for sustainable development. Global evidence shows that countries that consistently monitor water, air, sanitation, and exposure to hazardous materials have a higher capacity to prevent environmentally related diseases (Prüss-Ustün et al., 2016; World Health Organization, 2016). In this regard, monitoring serves not only as an early detection system for health risks but also as an instrument for evaluating the effectiveness of development policies.

Furthermore, environmental health can reflect the overall performance of environmental infrastructure, including the sustainability of drinking water supply, sanitation, and waste management systems. Failure to maintain the sustainability of these systems has the potential to lead to a *rebound effect*, where physical development actually increases health risks due to uncontrolled environmental degradation. Therefore, integrating environmental health indicators into development planning and evaluation is a crucial prerequisite for achieving sustainable, health-oriented development.

2. The Impact of Environmentally Conscious Development on Public Health

Cross-country studies consistently demonstrate that environmentally-based development interventions have a significant impact on reducing environmentally related diseases, with estimated reductions ranging from 30% to 55%, depending on the socioeconomic context and quality of implementation (Prüss-Ustün et al., 2016; Romanello et al., 2023). This impact is particularly evident in reductions in diarrheal diseases, respiratory infections, skin diseases, and non-communicable diseases associated with long-term pollution exposure.

Increasing access to safe drinking water and proper sanitation is one of the most effective interventions globally. In addition to reducing infectious diseases, this intervention also contributes to improved nutritional status, reduced stunting rates, and increased community productivity (World Health Organization, 2016). This demonstrates that developing a clean environment has cross-sectoral *co- benefits* encompassing health, social, and economic aspects.

Furthermore, efforts to control air pollution in urban areas through emission reduction policies and a transition to clean energy have been shown to reduce the prevalence of respiratory and cardiovascular diseases, particularly in developed countries (Fuller et al., 2022). These findings confirm that an environmentally sound development approach is universally relevant across all levels of economic development.

3. The Role of Technological and Social Innovation in Supporting Implementation

The study also highlights the critical role of technological and social innovation in supporting the implementation of environmentally conscious development. The use of digital technology in environmental monitoring systems, waste management, and disaster early warning systems has improved data quality and the speed of policy responses. This enables evidence - *based policymaking* , which is key to sustainable development.

However, the literature shows that successful implementation depends not only on technology but also on social innovations that encourage community engagement. Community-based approaches, such as the implementation of a circular economy, waste banks, and participatory environmental management, have proven effective in fostering behavioral change and maintaining program sustainability (United Nations Environment Programme, 2019). Therefore, the integration of technological and social innovation is a determining factor for successful implementation across various local and global contexts.

4. Cross-Sector Policy Synergy and Global Challenges

This study also identified that policy fragmentation remains a major challenge in implementing environmentally conscious development. Many countries still employ a sectoral approach that separates environmental, health, energy, and economic policies, hampering the effectiveness of development interventions (United Nations, 2015). This situation creates programmatic insufficiency and limits the resulting health impact.

The resource nexus approach offers integrative solutions by emphasizing the interconnectedness of water, energy, food, and land as a single, interacting system (Simpson & Jewitt, 2019). Without this approach, development risks creating *trade-offs* detrimental to health, such as the intensification of food production that leads to the degradation of water and land resources.

On the other hand, capacity imbalances between countries are also a global challenge. Low- and middle-income countries often face limitations in funding, technology, and human resources, while developed countries face challenges in reducing excessive consumption and carbon emissions. Therefore, international collaboration, technology transfer, and global financial support are crucial elements in promoting equitable and inclusive development (United Nations Environment Programme, 2019).

5. Theoretical and Practical Implications

Theoretically, these findings strengthen the integration of the concepts of sustainable development, environmental health, and *planetary health* within a single, comprehensive analytical framework. Health is no longer viewed as a downstream sector but rather as a cross-sectoral indicator reflecting overall development success.

Practically, the results of this study emphasize the importance of mainstreaming environmental health across all stages of development policy, from planning to evaluation. Therefore, environmentally sound development should be understood as a long-term investment that provides sustainable benefits for human health and environmental sustainability, rather than an additional cost burden. This approach provides a crucial foundation for driving the transformation toward healthier and more sustainable global development.

CONCLUSION

Development based on a clean and healthy environment is a universal paradigm relevant to all countries, regardless of their level of economic development. This review demonstrates that integrating environment and health into development has a significant impact on improving public health and global sustainability. Going forward, healthy and sustainable development can only be achieved through cross-sectoral policy synergy, strengthened environmental health monitoring, technological innovation, and global collaboration.

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