

Promoting Health of the Environment: Striking the Balance among Education, Persuasion/Marketing, and Force of Law

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ABSTRACT

In the last 40 years, laws and regulations devoted to environmental protection have been implemented the world over, particularly in more developed countries. More than 100 countries have environmental impact laws that mediate the effects of industry and society. Most countries have environmental laws that restrict air and water pollution and the unmitigated exploitation of natural resources, as well as environmental regulatory agencies charged with drafting and enforcing these laws. Specifically, the United States and many European countries have an extensive history of regulatory compliance and enforcement of environmental laws. However, environmental protection on a global scale cannot be achieved through force of law alone. Education, persuasion, and marketing are critical elements of the current environmental argument. A multi-faceted approach to conservation is required to persuade government, industry, and individuals of all nations to consider the environment while working to promote economic expansion. Striking the balance among education, marketing, and regulatory law is the key to effective global environmental interventions.

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Introduction

One of the greatest challenges facing people of the world today is promoting the health of the environment. The United Nations specifically addresses the health of the environment as one of eight Millennium Development Goals. This goal focuses around creating and ensuring environmental sustainability through policy and program creation, specifically concentrating on issues such as decreasing the loss of biodiversity, improving sanitation, and addressing overcrowding conditions around the world (United Nations Department of Public Information, 2010). This goal is not limited to any one nation, organization, company, or individual: Global environmental health affects everyone.

Although the environment is external to individuals, it can have a significant effect on personal health status. The health of the environment affects rates of both physical and mental health problems. The growing burden on human health caused by pollution, deforestation, and overconsumption have been linked with increasing levels of chronic diseases such as obesity, asthma, and cancer, as well as acute illnesses due to unsanitary conditions and unsafe drinking water (Pruss-Ustun, Bonjour, & Corvalan, 2008; Srinivasan, O'Fallon, & Dearry, 2003).

According to the World Health Organization (WHO), environmental health is focused on the

effects of various chemical, physical, and biological agents on human health (WHO, 2011). The goal of environmental health is to identify and control agents that negatively impact human health in order to prevent or limit potential disease, injury, or disability.

Historically, environmental health focused on chemical toxins and their relationship to human disease, namely cancer (Srinivasan et al., 2003). As research evolves, we are able to see many new correlations between human health and the environment, far beyond those promulgated by chemical toxins emitted by industry. In fact, the Centers for Disease Control and Prevention (CDC) are currently conducting numerous health studies to look at effect that the environment has on health in terms of noise, extreme weather conditions, and pesticide use (CDC, 2011). The very definition of environmental health, as noted in *Healthy People 2020*, includes other physical and social factors that may determine human health, disease, or injury.

This expansion has led to the investigation of schools, homes, and workplaces in terms of their effect on human health. Locations such as these constitute what is known as the built environment, or spaces that are created or modified by people (USDHHS, 2011; Srinivasan et al., 2003). The built environment can have a significant influence on either the health or illness of people. These environments, as well as the people who create and

contribute to them, influence many aspects of both physical and mental health. Specifically, built environments can contribute to physical problems such as asthma, obesity, and exposure to contamination or disease-carrying vectors (Srinivasan et al., 2003). They also can contribute to mental problems such as anxiety, depression, or diminished cognitive ability.

Through its Global Health Observatory, the World Health Organization (WHO) has reported that as much as 23% of the global disease burden is related to the environment (WHO, 2011). A 2002 report of major risks to health among 192 countries found that by addressing the top three environmental issues of unsafe water and sanitation, indoor air pollution from solid fuel use, and outdoor air pollution, between 13% and 37% of any nation's disease burden could be prevented. This reduction translates to 13 million preventable deaths per year (WHO, 2002). Four million of these deaths could be prevented simply by addressing the key issue of unsafe drinking water, and safer cooking fuels and could reduce child mortality by an astonishing 25% among the 20 lowest income countries (WHO, 2002).

Low-income populations clearly bear the heaviest environmental burden, but no nation is exempt. Whereas environmental law is certainly a first step to restricting the exploitation of natural resources and environmental degradation, a multi-faceted approach to environmental improvements is needed. By adopting an approach that includes education and marketing, in addition to policy, it is possible to appeal to individual behavior and encourage advocacy for new and improved environmental policy (Amechi, 2009; Pruss-Ustun et al., 2008). This approach provides a framework for correcting the mistakes of the past and ensures a healthy environment for future generations.

The Importance of Law / Policy

Modern environmental law originated in the 1970s. During this decade, environmental agencies and programs were created, including the Environmental Protection Agency (EPA) of the United States, the World Commission on Environment and Development (WCED) and the United Nations Human Settlement Programme (UN-HABITAT) (Gunningham, 2009; Pedersen, 2008; Northridge, Sclar, & Biswas, 2003). Several international initiatives, including the 1972 Stockholm Declaration, the Victorian Environmental Protection Act of Australia, and the Canadian Waters Pollution Act also took place during this time, paving the way for current environmental policy. These initiatives were founded on the principle that a healthy environment is essential to the well-being of

humans, providing a foundation for later policy development (Pedersen, 2008; Northridge et al., 2003).

Environmental degradation affects primarily poor and marginalized people throughout the world, people who are already vulnerable to extreme health disparities (McInerney-Lankford, 2009; Srinivasan et al., 2003). In this sense, environmental law is closely related to social justice and human rights, offering citizens throughout the world additional leverage for enforcing weak environmental legislation (Amechi, 2009; Pedersen, 2008). International law has the power to link issues like climate change to human rights, harnessing the resources of both for the greater good (McInerney-Lankford, 2009).

Moving from the global scope of human rights and international environmental law to the community level, urban planning and zoning is yet another area of law and policy impacting human health and the environment. Until World War II, urban planners and public health professionals worked closely to ensure built environments conducive to health. In recent decades, there has been a shift away from such cooperation, limiting the design and implementation of policies and interventions that could result in healthier environments for urban populations (Northridge et al., 2003). According to the United Nations Human Settlements Programme, one-sixth of the world's population, over one billion people, live in slum-like conditions. It is estimated that the world's population will increase by two billion people by 2030, and half of those people will live in sub-standard economic conditions (Pruss-Ustun, et al., 2006). Law and policy can impact health by influencing the planning process, improving the urban environments where so many of the world's people live. Furthermore, strategies that target multi-disciplinary teams of stakeholders to improve the environment, both from a broad human rights perspective, as well more focused built environment efforts, have great potential to effect change (McInerney-Lankford, 2009).

Whereas policy interventions may have the greatest potential to benefit population health, without proper regulation and enforcement, policy will fall short (Amechi, 2009). Preventing further environmental degradation and threats to human rights resulting from environmental changes will require harnessing the moral, political, institutional, and legal expertise of the international community and engaging stakeholders in concerted, coordinated action and multi-disciplinary efforts in education and marketing, as well as law (McInerney-Lankford, 2009; Pedersen, 2008; Northridge et al., 2003).

The Importance of Education

Since 1993, the National Institute of Environmental Health Sciences (NIEHS) has supported a series of translation research programs involving combinations of partnerships among environmental health researchers, social scientists, health care providers, public health professionals, and communities. One such program, the “Community-based Participatory Research, Health Disparities, and Environmental Justice Program,” incorporates education using community-based social marketing strategies as well as advocacy efforts to influence policy related to the built environment (Srinivasan et al., 2003). In this way, education and social marketing are used to increase awareness of key environmental issues and the need for healthy urban and natural environments, which in turn influences advocacy activities for environmental policy development.

Education can be both instrumental in modifying learners’ behaviors in the present, as well as more participatory and action-oriented, teaching students how to target the social determinants of environmental problems (Schusler, Krasny, Peters, & Decker, 2009). The primary aim of environmental education is to develop students’ competency to participate as citizens in a democratic society, preparing youth for future roles as advocates for environmental health policy in the decades to come (Versnik Nowak, Hale, Lindholm, & Strausser, 2009; Schusler et al., 2009; Littledyke, 2008). There are several specific kinds of environmental education, among them community education, public issue analysis and advocacy for policy change, and products and services contributing to community development (Schusler et al., 2009).

According to Littledyke (2008), there is strong evidence that environmental education can influence both the attitudes and behaviors of students. Environmental education seeks not only to raise awareness of issues and influence the attitudes of its population, but also to develop skills that will lead to pro-environmental behaviors (Short, 2010; Littledyke, 2008).

However, there are a number of limitations to environmental education within schools, including a discord between education and action, and a lack of time and attention devoted to environmental topics (Littledyke, 2008). The discord between education and action may stem from an overall lack of connection between information presented and real-world experiences (Littledyke, 2008). For example students may learn about energy conservation in the classroom; however, their schools may not have any energy conservation policies. Additionally, critics note that this type of education tends to focus too

much on influencing individual behaviors, thus overlooking key social, political, economic, and historical constraints to environmental improvement (Schusler et al., 2009). Although behaviors like recycling may make the individual feel good, the overall impact on the environment is very low and may even be counterproductive: Environmental education tends to focus on smaller issues involving individual responsibility. Because of these shortcomings, people must also be exposed to environmental policy and marketing, which are often part of the bigger picture.

The Importance of Marketing / Persuasion

Marketers first addressed environmental sustainability in the 1970s with the emergence of the Ecologically Concerned Consumer (Kardash, 1976), Ecological Marketing (Henion II & Kinnear, 1976), and the Theory of Responsible Consumption (Fisk, 1973). These concepts represent an extension of social marketing theory, which was developing at the same time. Social marketing utilizes the strategies and concepts from commercial marketing to pursue social goals, focusing on increasing the health and well-being of individuals and their communities (Peattie & Peattie, 2008).

In the late 1980s, Green Marketing and Environmental Marketing began to take shape as a result of the Bruntland Report (WCED, 1987). The 1990s saw the continued evolution of these ideas with Enviropreneurial Marketing (Menon & Menon, 1997) and Sustainable Marketing (Fuller, 1999). These concepts relied on traditional marketing theory to encourage the transformation and reduction of consumption, replacing high intensity consumption behaviors with more ecologically sound alternatives (Peattie, & Peattie, 2008).

In 1999, McKenzie-Mohr and Smith began to explore the concept of community-based social marketing campaigns for environmental sustainability. This approach and other environmentally-oriented social marketing campaigns encourage sustainable lifestyles and discourage intensive consumption, seeking to replace high consumption behaviors with lower intensity alternatives (Berg, 2008; Peattie & Peattie, 2008). These marketing campaigns differ from simple educational programs in their emphasis on two-way communication between the program and its audience (the target population) rather than simple one-way information transfer. Social marketing seeks to interact with the consumer and build a relationship, or bridge, that can be leveraged to communicate the desired behavior to the audience (McKenzie-Mohr & Smith, 1999).

One of the most recognized examples of environmental marketing is the Ecoteams program, part of the Global Action Plan for the earth. Among participating cities in the United States, the Ecoteams program resulted in a 25% to 34% reduction in water consumption, a 9% to 17% reduction in household energy consumption, and a 16% to 20% reduction in fuel consumption for transportation (Peattie & Peattie, 2008). Whereas environmental law is geared towards addressing the broader issues of social justice and human rights in relation to environmental health, and education primarily works to develop the minds of the next generation for the purpose of advocating for more and better policies, marketing has the potential to impact *current* consumption patterns that negatively impact the natural and built environments.

Environmentally oriented community-based social marketing programs begin with a focus on identifying the benefits and barriers to environmental responsibility and then move towards minimizing or eliminating those barriers while enhancing the benefits. By using groups comprised of individuals from the businesses, program planners are able to determine not only the benefits and barriers that may affect environmental choices, but also determine the motivations present in the population or business. This approach is one of the keys to successful social marketing. A business may not be especially concerned about its pollution; however, it might be concerned with employee safety. In identifying the motivations and priorities that businesses have, such as employee safety, planners are better able to link those to the desired outcome of compliance with state and local pollution emissions laws.

In addition to addressing the priorities of the population and linking those priorities with desirable outcomes, social marketing also has focused on the aspect of social norming. Social norming refers to what people think they should do based on what they see others, who they perceive as similar to themselves, doing. In the case of a social marketing program in Denver, Colorado, social norming was the foundation behind a campaign to reduce the number of taxi drivers idling their vehicles (Berg, 2008). Planners are working to develop a new social norm in which those drivers who have committed to avoiding idling have a sticker placed on their cars. This "badge" enables other drivers to see how many people have committed to this cause, thereby creating a new social norm.

Social marketing is an integral piece of the pro-environmental movement, specifically when looking at its role in addressing current consumption behaviors. However, despite its valuable contribution to consumer behavior change, there are still times

when social marketing alone falls short. A multifaceted strategy serves to show that no one method or approach is complete in and of itself, but in using the triangulated approach of education, social marketing and law, one can strike a balance and effectively promote the health of the environment.

Conclusion

Each of these strategies, education, marketing, and force of law, can impact the health of the environment favorably, ultimately creating communities and nations where people have a right to health and enjoy that right in clean and safe communities. Environmental health begins at the micro-level, with the individual and his community, and urban planning and zoning initiatives can ensure that the streets are walkable and safe, and all citizens have equal access to healthy foods and supportive services. On a global level, human rights law and international environmental law can ensure the air is clean to breathe and the water is safe to drink for the currently one billion and counting who do not enjoy these rights. Education supports these efforts, increasing awareness of gaps in policy that need addressing and creating an understanding and sensitivity to environmental health in the next generation of advocates and policy-makers. Marketing, and specifically, socially responsible marketing, aims to impact the here and now, by educating the consumer and offering alternative behaviors to high consumption activities. Taken together, these three strategies seek to impact the health of the environment by correcting the mistakes of the past, restoring sound environmental policy in the present, and informing a responsible citizenry for the future.

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