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# **The Nexus of Sustainability & Social Equity: Virginia's Eastern Shore (USA) as a Local Example of Global Issues**

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## **Abstract**

*The practice of sustainable development requires society to equally and simultaneously address economic enhancement along with actions that offer environmental protection, while also insuring that the most disadvantaged people in our communities are provided the ability to improve their quality of life. The ethnic and class stratification of different societal sectors represents one of the most tenacious forms of inequality in any part of the world. For this reason, where inequities persist in severe forms, ideas about balancing economic development and environmental preservation may be particularly contentious. The primary premise of this paper assumes that without equity considerations economic and environmental sustainability objectives of a region cannot be achieved.*

*If we expand the meaning of environmental equity or justice beyond disproportionate impact from pollution on public health, and combine issues of populations that are disproportionately affected by environmental insults as well as adequate access to environmental benefits, then we have a paradigm under which to explore mechanisms for poor people to derive equal benefits from the advantages of environmental related business income. By exploring how poor people might benefit from nature-based business activities as an example, we can begin to demonstrate important linkages between a foundation of good environmental quality and the prosperous development of economic activity in certain societal sectors that might otherwise not make this connection.*

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*This paper addresses a Virginia Eastern Shore (USA) case history example to explore whether or not a nature-based economy and consideration of a targeted, value-added tax on this industry's income can finance the transition of a region's neediest citizens to a better quality of life and in-turn a more amenable setting to further enhance economic development in the region that is environmentally sustainable. A focus on environmental equity emerges as key in this discussion because of the historical disregard for the environmental health and rights of disenfranchised peoples, where a disproportionate and dangerous ecological price for economic growth has been paid by poor people and people of color, both in the United States and in other nations. Thus, the nexus of sustainable development and equity, where equity considerations loom large in the search for economic development that does not degrade natural resources.*

## **Introduction**

The increasing gap between rich and poor peoples and nations, and the growing environmental, cultural, ethnic, religious, and social crises around the world represent major challenges in moving towards global economic security. Nation-states and local communities must consider how to preserve and strengthen their economic, environmental, and social characters simultaneously if they are to sustain the extant quality of life and enhance it for the future. Positive change in any one of these three areas, however, will undoubtedly bring change in the others that may not be perceived or experienced as beneficial for all community members. In addition, the value accorded to economic or environmental enhancement may be dependent upon one's place in any community characterized by inequality.

In the United States, for example, the racial stratification of Whites of European ancestry and African Americans represents one of the most tenacious forms of inequality. In locales where racial inequities persist in severe forms, ideas about balancing economic development and environmental preservation may be particularly contentious. A community's poorest and most disenfranchised members may view concern about protecting the environment over pursuing economic opportunities as an unnecessary and needlessly expensive luxury that will only cost them the ability to attain financial well-being. This disconnect is often caused by the fact that

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while the environmental and economic viewpoints of a community's sustainability are frequently discussed (unfortunately often separately), the equity perspective is the most poorly understood.

This paper explores the issues surrounding sustainable development, with particular emphasis on social equity in the distribution of the costs and benefits incurred for promoting economic prosperity while preserving the natural environment. We first outline the concept of sustainable development and its three components: economic vitality, ecological integrity, and social equity.

We then discuss how a disproportionate and dangerous ecological price for economic growth has been paid by poor people and people of color in the United States and in other nations, and by developing nations in the global economy. Herein, we suggest lies the nexus of sustainable development and equity: sustainability objectives cannot be truly achieved without regard for equity and justice considerations. We then turn to a local example of these global issues in the exploration of sustainable development on the Eastern Shore of Virginia (USA), a relatively pristine place of ecological importance in which equity considerations loom large in the search for economic development that does not degrade natural resources.

## **Sustainable Development**

Until now, the most dramatic changes that our forefathers and foremothers experienced were droughts, floods, famine, or war. But because of a technology and cultural evolution all of this is changing. Some may say changing for the better because of new innovations in technology. One can wonder though, what cost are these changes exerting on our future? Social injustice, economic exploitation, and environmental pollution are not natural. They are consequences of thinking that has molded human development for more than 200 years.

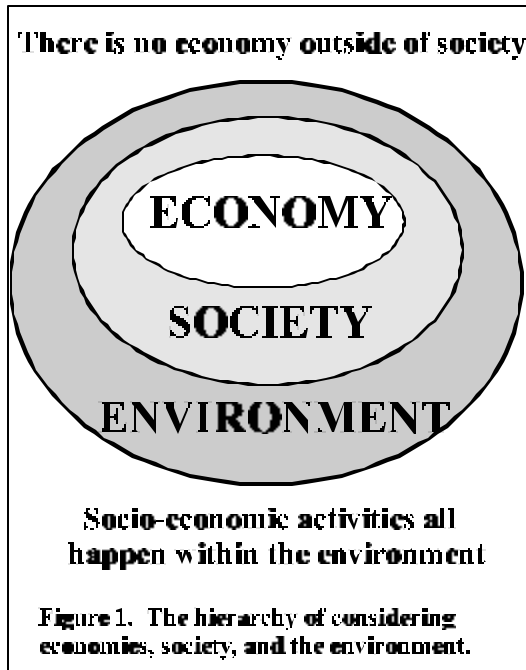
The growing scale of disease, child abuse, crime, injustice, energy shortages, lack of good jobs, extinction of species, poverty, destruction of forests, pollution, breakdown of families, global hunger, and civil unrest are critical factors alerting decision-makers, market forces, and civil society in general that something needs to change. Making matters worse are issues that, when they come to light, only widen the disagreement gaps, increasing conflict between for example the "environmentalists" most concerned about nature

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and the "conservatives" most concerned about economies. Adopting principles of sustainable development is the only way of comprehensively addressing all these across-society issues toward the seeking of sound solutions, while also lessening the disagreements.

Achieving sustainability, however, is not merely about a series of technical fixes, about re-designing humanity or re-engineering nature in our continuing desire to compete in the global economy. It must be understood and approached as a moral/ethical issue as well as a scientific and technical challenge (Flint et al, 2000: p. 192). Sustainable development is about re-connection with nature and developing a profound understanding of the concepts of care that underpin long-term stewardship of the places we call home, offering people an ability to fully appreciate the environment's relationship to our economic and social systems.

The concept of sustainable development can be traced to the World Commission on Environment and Development (1987: p. 5), also known as the Brundtland Commission. The 1992 Earth Summit in Rio de Janeiro (more accurately known as the United Nations Conference on Environment and Development) brought the issues to international prominence and produced the worldwide action plan *Agenda 21* (United Nations, 1992). Further attention was brought by various national councils aimed at implementing the plan and by a five-year review of Earth Summit progress (United Nations, 1997).



Sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987: p. 7). This definition recognizes that all life depends on natural resources. The failure to protect the physical environment threatens the future as well as compromises the present. Sustainable development proponents argue that problems in the economy, environment, and society are interrelated and global in context. Economic prosperity can only truly

occur alongside a healthy natural environment, coupled with healthy social systems. This is best demonstrated in the hierarchical presentation of Figure 1 that illustrates how the socio-economic spheres of communities must always be considered within the larger environmental sphere of influence. This conceptualization suggests how economic and cultural activities are integrated into natural processes.

The U.S. President's Council on Sustainable Development (PCSD, 1996: p. iv; Anderson and Lash, 1999: p. iv) added a key idea to the World Commission's definition: "A sustainable United States will have a growing economy that provides equitable opportunities for satisfying livelihoods and a safe, healthy, high quality of life for current and future generations." Meeting the needs of present and future generations, however, requires more than outright economic growth. As Bartlett (1999: p. 53) notes, current population and consumption rates cannot be maintained indefinitely on a global scale because of limiting natural resources. More importantly, the unequal distribution of the costs and benefits of growth will not be long tolerated by those to whom such benefits do not accrue, especially in

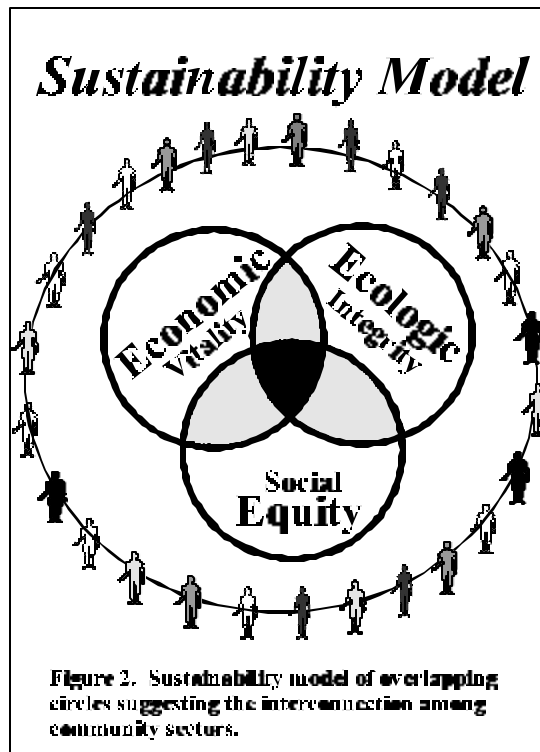
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an age of technology which transmits visions of wealth to those in poverty. Sustainable economic development must be both environmentally sound and shared fairly among societal members. Thus, sustainable development comprises three parts: economic vitality, ecological integrity, and social equity (Figure 2).

As Figure 2 shows, the overlapping circles demonstrate the interconnectedness of a communities' economic, social, and ecological dimensions. Members of a sustainable community would realize that long term economic viability depends upon having a sound ecosystem, a healthy social environment, and a political system that facilitates full public involvement in governance (suggested by the ring of people around the three circles of Figure 2). It is helpful therefore, to think of sustainable development as a three-legged stool, with each leg representing one of the basic elements -- ecological integrity, economic viability, and equitable social well-being (Flint et al, 2001).

If one of the legs is removed, the stool falls over, demonstrating the importance of all three legs to maintaining the upright position of the stool. All three elements are equally important in establishing the foundation of sustainable development.

Applying this perspective to real world situations, sustainability represents a multi-dimensional way to achieve recovery and improve the quality of life for everyone by concurrently limiting waste and pollution, improving the status of disadvantaged peoples, conserving natural resources, making valuable connections among people, promoting cooperation and efficiency, and developing



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local assets to revitalize economies. Likewise, the process of developing community sustainability will expose citizens to the effects of their actions on others and on their local environment, while motivating and mobilizing them to pursue a responsible and shared vision for a collective future.

Economic vitality is founded in "a healthy ... economy that grows sufficiently to create meaningful jobs, reduce poverty, and provide the opportunity for a high quality of life for all in an increasingly competitive world" (PCSD, 1996: p. 15; Anderson and Lash, 1999: p. iii). Good jobs pay living wage salaries, offer safe conditions of work, and are environmentally clean. They require interested and educated workers. Such workers are present only if quality educational resources are widely available. Government policies combine with market forces to assure a truly healthy economy which diversifies and co-develops rather than simply "grows" (Jacobs, 2000: p. 19).

Ecological integrity represents a core element of sustainable development. Conserving natural resources and decreasing toxic substances, environmental hazards, and pollutants protects the long-term health of the economy as well as the community's members. It ensures that "that every person enjoys the benefits of clean air, clean water, and a healthy environment at home, at work, and at play" (PCSD, 1996: p. 14; Anderson and Lash, 1999: p. iii). This goal is met, in part, through the conservation of natural resources and decreases in exposure to toxic substances and environmental hazards.

Social equity refers to fairness among community members; that is, evenhandedness both economically and environmentally, as well as in all aspects of social well-being (PCSD, 1996: p. 16; Anderson and Lash, 1999: p. iii). Sustainable development requires an equitable distribution of economic and environmental costs and benefits, critical community services (e.g., education, health care), and opportunities to participate in decisions which affect the community. Equity is measured by the progress made by those who are most disadvantaged in the community, usually racial/ethnic minorities, indigenous peoples, women, and/or youth and children.

Sustainable development cannot be successful unless all three of the above elements are assured, as illustrated by the overlap of circles in Figure 2. Yet social equity, and in particular environmental

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equity, has received the least attention in much of the sustainable development literature. Inequalities among peoples, particularly racial/ethnic inequality, endure as one of the foremost challenges to the sustainable development movement.

## **Environmental Equity**

As defined by the U.S. Environmental Protection Agency (EPA), **Environmental Equity** (justice) is the fair treatment of people of all races, cultures, and income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. No people should be forced to shoulder a disproportionate share of the negative environmental impacts of pollution or hazards due to a lack of political, economic, or educational strength (U.S. Environmental Protection Agency, 1996). In contrast, **Environmental Racism** can be defined as the intentional siting of hazardous waste sites, landfills, incinerators, and polluting industries in communities inhabited mainly by African Americans, Hispanics, Native Americans, Asians, migrant farm workers, and the working poor (Bryant and Mohai, 1992: p. 923; Bullard and Wright, 1992: p. 74; Wigley and Shrader-Frechette, 1995). Minorities are particularly vulnerable because they are perceived as weak and passive citizens who will not fight back against the poisoning of their neighborhoods in fear that it may jeopardize jobs and economic survival (McQuaid, 2000).

People of color comprise the vast majority of the world's population and an increasing share of the U.S. population. Most research on environmental attitudes and actions, however, especially when juxtaposed against economic development opportunities, has historically focused on majority groups only, or has failed to investigate the extent to which various racial/ethnic groups within a society differ (Grenier 1996). In addition, much of the early research on race and environmental attitudes assumed that African Americans were less concerned than Whites about the environment because they were less likely to be active in mainstream environmental organizations (Mohai, 1985: p. 829; Devall, 1970: p. 125; Harry et al, 1969: p. 250) or to visit wildland areas and participate in wildland leisure activities such as hiking, mountain climbing, bird-watching, etc (Grenier, 1996; Johnson et al, 1997: p. 92).



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The reality, in fact, is quite different. Blacks in the general population are as concerned as Whites about the environment, according to 1973-1990 trend analysis of General Social Survey (GSS) environmental questions (Jones and Carter, 1994: p. 565). Since environmental racism results in their greater likelihood of exposure to various environmental hazards including cancer alleys, some researchers suggest that Blacks are actually more concerned than Whites about the environment (Arp, 1994: p. 124). For example, waste sites are more likely to exist near communities composed of minority and poor people. Low land values attract both poor people, with little money to spend on housing, and industries producing hazardous chemicals and waste, because poorer and minority people are less likely to be politically connected or organized to resist the waste sites created (McQuaid, 2000). Therefore, these groups are exposed to higher levels of air, water, and noise pollution than Whites or middle- and upper-class people and so have a more intimate connection to questions of environmental contamination.

Racial/ethnic minorities, however, also have a more intimate connection to poverty and all that results from it. The extent and consequences of racial stratification in the U.S. means that Blacks exhibit less support for environmental initiatives that may be financially disadvantageous for themselves and other people of color or poor people (Danner et al, unpublished manuscript; Klineberg, 1998: p. 74; Durham et al, 1997: pp. 5-6). While they express as much concern about the environment as do Whites, African Americans rank race relations, discrimination, educational opportunity, and poverty higher than environmental concerns; they also rank these issues higher than do Whites who, as a group, are financially better off (Grenier, 1996; Jones and Carter, 1994: p. 576). The identification of environmental racism has spurred grassroots activism among poor people and people of color (Bullard, 1993: p. 6; 1994a; 1994b). They have realized that the lack of equity in the distribution of the environmental costs related to economic development has meant that they have suffered a disproportionate risk to health and safety (Faber and Krieg, 2001: p. 24; Stretsky and Hogan, 1998: p. 272; Krieg, 1995: p. 12; Bullard, 1992: p. 24; Mohai and Bryant, 1992: p. 829; Commission for Racial Justice, 1987).

As a result of this activism, U.S. President Clinton signed Executive Order #12898 (1994) and established the Office of Environmental Justice "to address environmental justice in minority

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populations and low-income populations." The central idea behind the Clinton Administration's efforts was that minority and poor communities have problems with pollution, public health, and quality of life that governments at all levels are not addressing -- responsibilities that ultimately fall to the federal government (McQuaid, 2000). The extent to which it will continue to operate, or even exist under President George W. Bush is yet to be seen.

The challenge for the sustainable development movement remains substantial. Failure to attend to the integration of economic development, ecological integrity, and social equity in a locale may exacerbate existing tensions among divergent and unequal populations. Efforts aimed at achieving sustainability will be endangered and progress slowed. The fundamental solution -- the one that will reduce racial and ethnic conflict, regenerate and focus the intellectual and moral energy of minorities, and make them partners in the construction of a progressive society -- rests ultimately on the common recognition of the oneness of humankind. This means people gaining dignity from a genuine regard by others for their stature as human beings. No economic, educational, or political plan can take the place of this essential human need. Economic development that is truly sustainable preserves and/or improves the environment, while meeting the needs of all people. The well-being of humankind, its peace and security, are unattainable unless and until its unity is firmly established.

## **The Nexus of Sustainability & Equity**

Individual and collective economic vitality is an important element of any sustainable community. But sustainable development cannot be achieved unless jobs are environmentally clean and do not contribute to air or water pollution or create toxic wastes. Further, social equity must dominate community dynamics so there exists a climate of fairness -- evenhandedness both economically and environmentally -- toward achieving social well-being for all. In essence, we are practicing sustainable development when we find the means to equally and simultaneously address all these characteristics of a sustainable community. If disproportionately impacted community members aren't able to improve their well-being, the best designed plans will not meet with success and future generations will not enjoy a high quality of life. This is the nexus of sustainable

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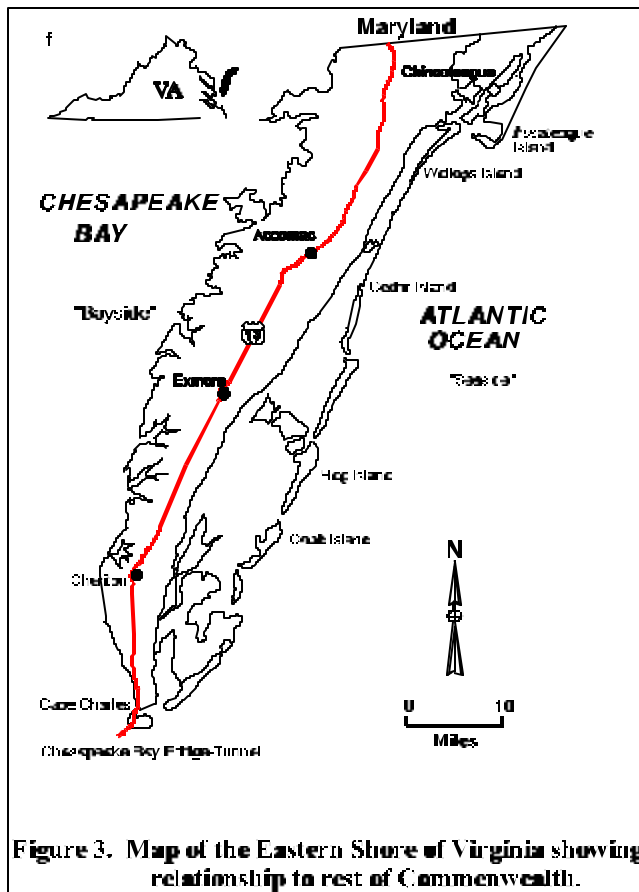
development and equity -- without equity and justice considerations sustainability objectives cannot be achieved.

In this context therefore, we are affirming that sustainable development not only embraces wisdom and stewardship in the management of natural resources, but also considers fulfillment of basic human needs such as food, shelter, clothing, and the provision of economic means through which to achieve these needs for all peoples in present generations, without compromising the ability of other species sharing our world or future generations to meet their own needs (Flint, 1996: p. 65). Just as environmental equity speaks to issues of poor people and people of color being disproportionately subjected to environmental pollution and public health risks, it also should speak to issues where these same people do not equally derive an opportunity to obtain benefits from profits and values associated with environmental resources. This situation of disproportionate benefits is linked to a number of factors, including:

- governments not promoting improved quality of life actions to disenfranchised populations from jobs and other forms of revenue gained through use of environmental resources;
- unequal access of the middle- and upper-class over poor people to environmental resources as well as their economic potential;
- the view by most poor people that environmental activities are a "white thing" or a "rich thing;" and
- lack of awareness by the public in general that environmental, economic, and social issues in rural economies are closely linked.

Unfortunately, attaining economic development while preserving the environment remains a challenging goal. While the Rio+5 report noted that some progress had occurred, great concern about the worsening overall trends was voiced (United Nations, 1997). Many developed nations had not yet committed the available and agreed upon resources to sustainable development. Due to massive foreign debt, most developing nations simply do not have the resources to address the issues especially when caught in the various economic crises spawned by the forces of globalization. Although much attention has been given to the environmental costs of economic development, the lack of social equity in the distribution of

the economic costs of environmental preservation will ultimately doom efforts at sustainable development especially when disadvantaged nations or groups are asked to do or suffer more than their share. That truth remains whether sustainable development efforts are global in scale or local, as, for example, on the Eastern Shore of Virginia.



## Virginia's Eastern Shore (USA) as an Example

The Eastern Shore of Virginia (USA) occupies the southern portion of the Delmarva Peninsula (States of Delaware, Maryland, and Virginia), geographically separated from the rest of the Commonwealth of Virginia (Figure 3). The two counties of this region have a rural population of approximately 47,000. Bounded by the Atlantic Ocean to the east and the Chesapeake Bay to the west, much of the

Shore's coastline on both sides is protected as wetland zones or wildlife refuges. These land-sea areas represent the best occurrence of a naturally functioning coastal ecosystem in the Atlantic Coastal Plain (Flint et al, 1996:172) and have been designated by the United Nations as a International Biosphere Reserve because of their significant ecological value (Clark, 1991: p. 334; Hayden et al., 1991: p. 314). The Eastern Shore watersheds are a rich mosaic of terrestrial, wetland, estuarine, and marine ecosystems. Land use as of 1990 was

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29.1% agriculture, 29% forest, 32.2% tidal marsh, 1.5% coastal beach, and 8.2% urban, suburban and residential area.

The process of Shore settlement has evolved from sparse, dispersed agricultural settlement, to a profusion of small villages, and recently rapid development of tourism and recreation nodes (e.g. Chincoteague, Virginia). Because of these changes from a truly rural, agricultural, and forested region to one that is increasingly urban, the health of the estuaries, bays, and woodlands has declined, and along with them the resources, livelihoods, and social fabric upon which rural communities and local economies depend (Flint, 1996: pp. 66-67). These changes are suspected of causing declines in water quality (Johannes, 1980: p. 370; Reay et al, 1992: p. 1130) and certain components of biological diversity (Boynton et al, 1982: p. 70; Valiela et al, 1990: p. 182) which in turn have caused the decline in health of coastal fishery populations, devastating traditional industries of fishing and shellfishing (Smutko, 1995). Likewise, median nitrate levels in many Eastern Shore groundwater drinking wells have been observed to often reach or exceed the U.S. Environmental Protection Agency maximum contaminant levels (Hamilton and Shedlock 1992), as well as exceeding the concentration of these nutrients in coastal receiving waters (Valiela et al., 1990: pp. 180-182).

The loss of essential natural resources (fisheries, clean drinking water, and habitats) during recent decades, presents a serious long-term threat to this region's economic prosperity and the sustainability of remaining ecological systems (Thomas, 1995: p. 28). People of the Eastern Shore have long relied on agriculture, forestry, and fishing for their economic livelihoods (Ellis, 1986; Bosch and Shabman, 1989: pp. 233-235). But, since 1990 significant loss of forested and agricultural land to residential and industrial development has occurred and pockets of urbanization (e.g., Cape Charles, Wallops, Chincoteague; Figure 3) are growing throughout this Virginia region of the Delmarva Peninsula (Shao et al, 1995). The economic consequences of natural ecosystem alteration have been significant, affecting local food supplies, the health of swimmers and consumers of seafood, local tourism, and aesthetic components which indirectly affect quality of life and economic prosperity. Minority communities have been most heavily affected by the loss of economic benefits from natural resources in this region.

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The Shore's social vitality is further hit hard by out-migration with limited opportunities for in-migration. The 17.6 mile Chesapeake Bay Bridge Tunnel at the southern end of the Shore (Figure 3) requires a \$10 one-way toll. The toll assures that the region will not become a commuter community, with its attendant economic opportunities as well as ecological problems, for people working in Norfolk or Virginia Beach, the closest Virginia mainland cities.

The people on the Eastern Shore are older, less well educated, and poorer than the rest of the state; they are, in fact, the poorest in Virginia. More than 22 percent of the households are below the poverty level, in contrast to 10 percent for Virginia as a whole (Danner et al, unpublished manuscript). African Americans are 38 percent of the population but 64 percent of those in poverty. Poor people of color on the Eastern Shore face disproportionate public health risks from inadequate wastewater treatment and deplorable housing conditions. Affordable housing is scarce and many units do not meet standards of decent housing (Flint, 1996: p. 68). Indoor plumbing is lacking in at least 14 percent of households, 76 percent of them the homes of African Americans. Everyone on the Eastern Shore, but particularly poor people of color, face significant public health risks from these conditions. Inadequate wastewater treatment also poses potential hazards to the surrounding coastal marine environment as well as to the public drinking water supply, which is provided from a sole source aquifer.

During the mid-1990s, social scientists surveyed African American and White Eastern Shore residents regarding their attitudes surrounding the three components of sustainable development (Durham et al, 1997pp. 4-8; Danner et al, unpublished manuscript). The Shore has a long history of racism -- dating back to slavery, Jim Crow, and Southern massive resistance to desegregation efforts -- whose effects are still felt today. Low levels of in-migration have resulted in the situation where many of the families on the Shore are descendants of people who owned or were owned by others also living there. Thus, the attitudes as well as the lives of African Americans and Whites on the Shore diverge.

With respect to economic vitality, residents equally recognized the acute need for increased economic opportunities on the Shore because of decline in traditional fishing and farming industries.

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Racial differences emerged, however, in the possible responses to economic decline. African Americans were less likely than Whites to view aquaculture and tourism as representing significant economic gains and also less likely to reject big industry.

Survey questions inquiring about a second element of sustainable development -- ecological integrity -- indicated that Whites and African Americans were equally likely to engage in recycling, to support basic individual-level environmentally conscious action, and to be aware of declining water quality. In addition, large numbers of both groups agreed that various types of environmental problems were present on the Eastern Shore. Racial differences were found with respect to the extensiveness of the problems and what to do about them. African Americans exhibited greater concern than did Whites for economic opportunity in those questions which clearly juxtaposed the environment and economy. These findings of African Americans' concern with the environment along with their concern that environmental preservation not further disadvantage them economically are consistent with their socioeconomic positions on the Shore as well as with earlier research (Klineberg, 1998:p. 78; Grenier, 1996; Jones and Carter, 1994: p. 569).

The findings with respect to social equity revealed both the depth of Black disenfranchisement on the Eastern Shore and the probability of institutionalized racism with respect to the quality of public services. While respondents of both races indicated a strong sense of belonging to the community, African Americans were significantly less likely to feel this than were Whites. Although residents accepted that they had some responsibility for bringing about change, they also doubted their own abilities in this area just as they doubted the effectiveness of community leaders and elected officials. Furthermore, numerous quality-of-life concerns seemed to be more pronounced for African Americans as they consistently rated the quality of basic public services poorer than did Whites.

Thus, the effects of historical and contemporary race relations on the Eastern Shore of Virginia leads to differences between Whites and Blacks in their attitudes toward sustainable development issues. The key issue seems to be one of equity in the search for economic opportunity in tune with ecological preservation. Without support throughout the community, efforts to ensure that economic development is both environmentally sound and fundamentally fair

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to all social groups may be thwarted.

## **Equity Solutions in the Context of Sustainable Development**

There are differences of opinion within societal sectors regarding methods to improve economic conditions, the need for enhancing the quality of life of disproportionately impacted communities, the desire to maintain good quality environments, and the nexus among improved quality-of-life, good-paying jobs, and environmental quality. More times than not, obstacles related to finances inhibit constructive discussions on how to create more equitable living conditions for poorer communities, lessening the disproportionate risks to public health from present conditions imposed upon these poorer population sectors. Under most circumstances, much of the revenue for financing these improvements would have to come from government subsidies, new taxes, and/or high monthly public service fees for utilities, which many residents can't afford because of lack of jobs.

If we expand the meaning of environmental equity (justice), however, beyond disproportionate impact from pollution on public health, to add issues of populations that are disproportionately affected as well by inadequate access to environmental benefits, then we have a paradigm under which to explore mechanisms for poor people to derive equal benefits from the advantages of environmental related business income. This could in-turn eliminate some of the other disproportionate impacts they are burdened with by providing means of paying for improvements (either through jobs or legislative-generated revenue streams).

Tourism for example, is the world's largest generator of jobs (Goledner, 1997: p. 64; Cummings and Mills, 1997). Tourism is also an important job-creating tool because it can be targeted to particular regions, bringing jobs and infrastructure to locations that were never imagined (Inman, 1998: pp. 32-34). Nature tourism and eco-tourism are high growth areas within the general tourism industry sector. These business trends represent ideal avenues for rural economies to further develop, enhancing the ability of poorer populations to better their quality of life.



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Eco-tourism is a new platform for enhancing the competitive strength of regions as international destinations because very little infrastructure is required and the economic benefits seem to be higher due to lower leakage of monies and resources out of a region. The International Commission on Tourism defines sustainable eco-tourism as the balanced interaction of three basic factors within the tourism industry: (1) proper stewardship of our natural and cultural resources; (2) improvement of the quality of life of the local communities; and (3) economic success that can contribute to other programs of local/regional development (Inman, 1998: pp. 38-39).

Through this nature-based business strategy, it is believed that incentives can be formulated to further encourage economic development on Virginia's Eastern Shore, focusing on the eco-tourism industry, so that benefits from environmental business opportunities are equally accessible to economically disenfranchised populations. Improved economic conditions, through provision of family-wage jobs, can significantly enhance the achievement of goals to lessen environmental health risks, from for example poor drinking water quality, by individuals being able to pay for improvements in the various impacted communities.

For example, regional economic impact research from nature-based business in places like the Eastern Shore has demonstrated a significant boost to economies that emphasize these activities. The recreational attractiveness of the Delmarva coastal bays region in general, the low cost of land, and "day-trip" accessibility from major cities such as Norfolk, Baltimore, Philadelphia, and Washington, all contribute to the potential for taking advantage of this economic development strategy. More than 10 million people now visit the Delmarva Peninsula annually. The primary recreational attractions of the region that draw these people are boating, swimming, and fishing, with more than a half-million user-days of recreational fishing each year (Chaillou and Weisberg, 1996). The Eastern Shore Annual Birding Festival (in its sixth year), has improved local economic industrial net output by as much as \$100,000 over a two-day period each year (Brothers and Smutko, 1997: p. 45). In addition, the Virginia Commonwealth reports tourism to Virginia's Eastern Shore represents \$60,000,000 in annual spending, support of 1,070 local jobs, and production of \$3,460,000 in local taxes (Virginia Tourism Corporation, 1996).

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## **Protecting Overburdened Natural Resources**

Achieving an improved quality of life for all members of the Virginia Eastern Shore community is built upon the premise of expanding and taking full advantage of the eco-tourism industry in order to support the needs of disenfranchised poor communities through the creation of jobs, as well as the development of a tax supported revenue source that will assist poor communities with needed infrastructure improvements. Often an immediate concern with this kind of strategy is, if you significantly expand eco-tourism in a place like the Eastern Shore then you will soon overburden the natural resources upon which the eco-tourism industry is founded. For example, as cited above 10 million people a year to this region can force growing anthropogenic pressures on these regional natural environments. Growth means quantitative increase in physical size and thus, implies that eco-tourism should grow unimpeded on Virginia's Eastern Shore, ultimately exceeding physical limits. Development, in contrast to growth, as in sustainable development, means qualitative change, realization of potentialities, and transition to a fuller or better state -- improvements through changes in quality, not quantity (Daly, 1992: p. 190).

An example of quality development instead of growth in quantity is provided by a close examination of the economics of an eco-tourism activity that has developed over the last decade, the annual Eastern Shore Birding Festival (Brothers and Smutko, 1997: pp. 35-42). As demonstrated from this value-added economic activity, improvement from investing in eco-tourism can be achieved while at the same time not degrading the environmental resources upon which this industry and other extant agriculture and aquatic industries ultimately depend.

As illustrated in Table 1, fewer people attended the 1996 Festival than in either 1993, 1994, or 1995, which resulted in a reduction in total industrial output for 1996. The overall economic impacts in 1995 and 1996, however, were characterized by a significant increase in average per party expenditure in Northampton County of \$269 (1995) and \$254 (1996), compared with \$110 (1993) and \$181 (1994).

**Table 1**  
**Economic Impact Data Comparisons 1993-1996 for the Annual**  
**Virginia Eastern Shore Birding Festival.(a)**

<b>Impacts on Northampton County Business</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
Total # Participants	743	874	772	613
Total # Travel Parties	392	383	321	264
Total Industrial Output	\$ 52,300	\$112,400	\$ 86,000	\$ 63,000
Average per Party Expenditure	\$ 110	\$ 181	\$ 269	\$ 254

**a** Statistics from Brothers and Smutko (1997)

This increased per party expenditure rate for festival participants reflected the importance of increasing the quality of this event with added birding venues each year, more nature based retail vendors, and the overall format of the event improving over the four years of analysis. Because of greater enjoyment experienced by the festival goers, they were willing to spend more money and stay longer (quality over quantity). This strategy over the long-term would be in contrast to always trying to increase the total numbers of people attending the event, which would eventually overburden natural resources.

These statistics demonstrate how increasing the quality of nature-based business activities, such as the annual birding festival on Virginia's Eastern Shore, without having to continually draw increasing crowds of people each year in the traditional sense of "growing the event", can still produce the desired economic benefits of increasing profits to support the local economy from one year to the next. From this assessment, it is clear that effective strategies can be enacted to encourage nature-based business for supporting the economic needs of disenfranchised communities, without overburdening and consequently degrading the natural resource base so important to supporting this particular economy, as well as most other economies on the Eastern Shore.

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## **Fair Distribution of Environmental-Derived Economic Benefits**

It is accurate to assert, however, that eco-tourism or nature-based tourism, and the leisurely recreational enjoyment it symbolizes, as well as the means of making an income it represents through businesses endeavors, are activities primarily embraced by middle and upper-class society and not by economically disenfranchised communities. Few analyses, including the report on the Eastern Shore Birding Festival, trace the distribution of economic benefits to groups or individuals in the community. Poor people may see little immediate financial benefit to nature-based tourism. Equally true, however, is the fact that for nature-based economies to prosper in what are now often characterized as poor rural communities, the environmental amenities of these locales must be protected and enhanced, and the appeal of landscapes unimpeded by eroding community infrastructure and other signs of poverty.

By exploring how poor people might benefit from nature-based, eco-tourism business activities, we can begin to demonstrate important linkages between a foundation of good environmental quality and the prosperous development of economic activity in certain societal sectors that might otherwise not make this connection because of cultural differences and their overriding daily burdens of making sure they possess food, shelter, clothing, health, and the economic means to achieve these. Likewise, if a region intends to significantly capitalize on the growing recreation and nature-based tourism industry, infrastructure-degraded poor communities will have to be improved, as well as equal advantages provided to these people to enhance their economic prosperity, through business opportunities in this growing economic sector. It is simply not acceptable to force the movement of poor people out of the region by taxing them on the perceived new value of land or increasing the costs of goods and services, strategies historically pursued when developing new environmental recreation areas such as lakes, ski slopes, or golf courses.

Unfortunately, the market situation and creation of new jobs, cannot necessarily completely solve the problem of fair, equal access to the economic benefits from use of natural resources that

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eco-tourism might represent (Montague, 1998). Left alone, a market economy tends to create inequalities that grow larger as time passes. Both the economic successes and failures of individuals tend to be cumulative -- the successful tend to succeed again and again while the unsuccessful tend to remain unsuccessful. Therefore, because the market for eco-tourism in any particular region might not be able to completely solve the problem of unfair distribution of economic benefits, this problem must also be solved by people deciding what is fair, then making public policies intended to achieve a fair distribution.

## **Eco-Tax to Ensure Equity**

Beyond the actual creation of new jobs and related income for disadvantaged populations, as an alternative a value-added tax (VAT) on the consumption of nature-based business goods and services is a reasonable consideration for jurisdictions as a means to finance the transition of a region's neediest citizens to a better quality of life and in-turn a more amenable setting to further enhance economic development in the region. Creating a more narrow VAT that only targets the consumption of goods and services related to the use of environmental resources, eliminates the regressive nature of value-added taxes by exempting those consumer items and activities most sought by low-income populations, targeting consumption of nature-based business goods and services whose access is of less interest to low-income, minority populations.

Although powerful vested interests within the business community are likely to resist a VAT dedicated to funding disadvantaged community improvements, the alternatives of taxing income or leaving the problem of human health at risk and economic growth in jeopardy from not having adequate environmental protections and other community development activities enacted are even more onerous. By stimulating employment to allow individual support of improvements and imposing a targeted VAT that directs the revenue exclusively to build infrastructure and finance other community development actions that will enhance the quality of life for presently disproportionately impacted populations, a closed loop is created between the market economy, the importance of good quality environmental resources, and low-income populations. Thus, the nexus of sustainable development and equity.

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An analogy to this kind of taxing idea is readily found in most major urban areas that have implemented a "occupancy tax" to derive additional revenues for support of community development initiatives, where the burden is placed on the visitor, not the resident. Likewise, the idea of VAT has already been adopted by more than 59 countries, including virtually every major European nation (Anonymous, 1993). A recent example of this strategy being applied in Europe for similar reasons is the "eco-tax" on tourism that Spain is enacting for its resort area, the Island of Minorca (Environmental News Service, 1999). In the case of Minorca, the tax revenue would be dedicated to alleviating the effects of tourism on the environment. Specifically, the revenue will be earmarked to maintain natural parks and restore damaged coastlines. The driving force behind this enactment of a VAT for Spain's Island of Minorca is that the twin problems of coastline destruction and wastewater disposal have moved to the top of Spain's political agenda for this area.

## **Conclusion**

The diversity of settings in rural coastal locales often pose unique problems for conventional industry/business development and require innovative solutions to create and maintain viable local economies and communities. In many instances there are not many alternatives for communities to revive their dwindling economic pictures and usually environmental factors further limit economic opportunities. Reversing the large "leakage" of monies, materials, and human resources from an outward trend in a region, to an increased inward flow, requires transforming existing internal economies. The key to successful long-term restoration lies in the sustainability of these economic activities.

If economies can be transformed by value-added activities involving local assets (e.g. environmental resources) the region can prosper from the added dollars. Recreation and tourism have emerged as a major focus of economic development in many communities. Tourism is a widely praised industry because of its rapid development through job creation, technology transfer, investments, and other elements, it can bring to remote, economically impaired communities. It has even been considered by worldwide organizations as the industry that will lead the world into sustainable development (Inman, 1998: p. 44). The Virginia Eastern

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Shore possess a number of factors making this region ideal for exploring incentives to create benefits and resources for poor people of color that are directly related to profits derived from business associated with high quality environmental characteristics of the region. Thus, the connection between economic security, environmental health, and social equity.

A focus on environmental equity emerges as key in this discussion because of the historical disregard for the environmental health and rights of disenfranchised peoples. By demonstrating how people, especially the poor most impacted by economic declines, can benefit from nature-based business activities, we can confirm important linkages between a foundation of good environmental quality and the prosperous development of economic activity in certain societal sectors that might otherwise not make this connection. It also reinforces the fact that sustainable development is not something that can be done halfway. It is not a condition in which a compromise (some win; some lose) can be struck. To be sustainable requires ultimate agreement on everybody's part (everybody is a winner). Only partially implementing sustainable development defeats sustainability altogether. Leave one process out of the equation, or in some other way alter a connection between important economic and environmental or social elements, and the system as a whole will gradually be deflected toward an outcome other than that which was originally intended. It is thus critical to consider carefully the elements of sustainability and the relationships that make them work.

## **References**

Anderson, R. and J. Lash. 1999. "Towards a Sustainable America: Advancing Prosperity, Opportunity, and a Health Environment for the 21st Century." The President's Council on Sustainable Development Publications, Washington, DC. 158 pp. (<http://www.whitehouse.gov//PCSD> - Retrieved 10/2/00).

Anonymous. 1993. "Adopting a Consumption Tax." Current, May 1993.

Arp, William. 1994. "A Triad of Environmental Concern: Race, Party Affiliation and Political Ideology." *Western Journal of Black Studies* 18:121-31.

---

Bartlett, A.A. 1999. "Reflections on Sustainability, Population Growth, and the Environment: Revisited." *Focus* 9(1): 49-68.

Bosch, D.J. and L.A. Shabman. 1989. "The decline of private sector oyster culture in Virginia: Causes and remedial policies." *Society and Natural Resources* 2: 227-243.

Boynton, W.R., W.M. Kemp, and C.W. Keefe. 1982. "A comparative analysis of nutrients and other factors influencing estuarine phytoplankton production," pp. 69-90. In: V.S. Kennedy (ed.), *Estuarine Comparisons*. Academic Press, New York.

Brothers, M. and S. Smutko. 1997. *Economic Impacts of the 1996 Eastern Shore Birding Festival*. Resource Analytics, Inc., Raleigh, NC. 61 pp.

Bryant, B. and P. Mohai. 1992. "Environmental injustice: Weighing race and class as factors in the distribution of environmental hazards." *Univ. Colorado Law Review* 63: 921-932.

Bullard, R.D. 1990. "Ecological inequities and the new South: Black communities under siege." *J. Ethnic Stud.* 17(4): 101-115.

Bullard, R.D. 1992. "Politics of race and pollution." *Multinational Monitor*, June: 22-25.

Bullard, R.D. and B.H. Wright. 1992. "The politics of pollution: Implications for the Black community." *Phylon* 47(1): 71-78.

Bullard, R.D. 1993. "The threat of environmental racism." *Natural Resources and the Environment* 7(23): 6

Bullard, R.D. 1994a. "Race, Class, and the Politics of Place," Chapter 2 (pg. 31-53). In: (R.D. Bullard, ed.) *Dumping in Dixie: Race, Class, and Environmental Quality*, 2<sup>nd</sup> ed., Westview Press, Boulder, CO.

Bullard, R.D. (ed.) 1994b. *Unequal Protection: Environmental Justice and Communities of Color*. Sierra Club Books, San Francisco, CA.



---

Chaillou, J.C. and Weisberg, S.B., Kutz, F.W., DeMoss, T.E., Mangiaracina, L., Manien, R., Eskin, R. Maxted, J., Price, K. and Summers, J.K. 1996 "Assessment of the ecological condition of the Delaware and Maryland coastal bays," EPA/620/R-96/004, EPA National Risk Management Research Laboratory, G-72, Cincinnati, OH 45268

Clark, J.R. 1991. "Management of coastal barrier biosphere reserves." *BioScience*, 41(5): 331-336.

Commission for Racial Justice. 1987. *Toxic Wastes and Race in the United States: A National Report on the Racial and Socioeconomic Characteristics of Communities with Hazardous Waste Sites*. United Church of Christ, New York, NY.

Cummings, B. and J. Mills. 1997. "Open Travel Markets - Creating Jobs." World Travel and Tourism Council, London, UK. 8 pp. (<http://www.wttc.org/wttcgate.nsf> - Retrieved 10/8/97).

Daly, H.E. 1992. "Allocation, distribution, and scale: Toward an economics that is efficient, just, and sustainable." *Ecological Economics* 6: 185-194.

Danner, M., C. Seyfrit, R.W. Flint, L. Lombardo, B. Durham, and K. Byars. "Race and sustainable development on Virginia's Eastern Shore." (Unpublished Manuscript)

Devall, W.B. (1970) "Conservation: An Upper-Middle Class Social Movement. A replication." *Journal of Leisure Research* 2(2): 123-126.

Durham, B., M. Danner, C. Seyfrit, and R.W. Flint. 1997. "Sustainable Development on Virginia's Eastern Shore: Opinions of Residents." The Eastern Shore Institute, Pub. #5, Waterford Press, Exmore, VA. 12 pp.

Ellis, C. 1986. *Fisher Folk: Two Communities on the Chesapeake Bay*. The University Press of Kentucky, Lexington, KY.

Environmental News Service. 1999. "Spain plans Europe's 1st eco-tax on tourism." (<http://ens.lycos.com/ens/aug99/1999L-08-19-01.html> - Retrieved 1/30/01)

---

Faber, D.R. and E.J. Krieg. 2000. "Unequal Exposure to Ecological Hazards: Environmental Injustices in the Commonwealth of Massachusetts." A Report by the Philanthropy and Environmental Justice Project, Northeastern University, Boston, MA. 45 pp.

Flint, R.W. 1996. "Virginia's Regional Approach to Sustainability: Balancing Environment and Economy," pp. 70-75. In: (K. Beidler, P.Gant, M. Ramsay, and G. Schultz ed.); Proceedings - Delmarva's Coastal Bay Watersheds: Not Yet Up the Creek (A Conference on Ecology and Economy). U.S. Environmental Protection Agency, National Health and Environmental Effects Research Laboratory, Atlantic Ecology Division, Narragansett, RI. EPA/600/R-95/052. 103 pp.

Flint, R.W., S.B. Sterrett, W.G. Reay, G.F. Oertel, and W.M. Dunstan. 1996. "Agricultural and environmental sustainability: A watershed study of Virginia's Eastern Shore," pp. 172-175. In: (Tetra Tech, Inc. ed.) Proceedings of the Watershed 96: A National Conference on Watershed Management, June 8-12, 1996, Baltimore, MD. U.S. Environmental Protection Agency, Washington, DC. 1165 pp.

Flint, R.W., W. McCarter, and T. Bonniwell. 2000. "Interdisciplinary education in sustainability: links in secondary and higher education." *Int. J. Sustainability in Higher Educ.* 1(2): 191-202.

Flint, R.W., R.C. Rich, and K. Lamphier. 2001. "Sustainable Communities: Their definition and science needs." Paper presented at the Proc. 25th Annual Conf. Political Economy of the World-System, Virginia Tech, Blacksburg, April 19-21, 2001.

Goledner, C.R. 1997. "The 1997 Travel Outlook." *J. Travel Res.*, 35(3): 61-65.

Grenier, D. 1996. Perspective of African-Americans' Environmental Attitudes. [Dissertation] *Dissertation Abstracts International*, 1996, 57, 5, Nov, 2215-A-2216-A.

Hamilton, P.A. and R.J. Shedlock. 1992. "Are Fertilizers and Pesticides in the Groundwater: A Case Study of the Delmarva Peninsula." Richmond, VA: U.S. Geological Survey, Circular #1080.

---

Harry, J., Gale, R. and Hendee, J. 1969. "Conservation: An Upper-Middle Class Social Movement." *Journal of Leisure Research* 1(3): 246-254.

Hayden, B.P., R.D. Dueser, J.T. Callahan, and H.H. Shugart. 1991. "Long-term research at the Virginia Coast Reserve." *BioScience*, 41(5): 310-318.

Inman, C. 1998. *Impacts on Developing Countries of Changing Production and Consumption Patterns in Developed Countries: The Case of Eco-tourism in Costa Rica*. United Nations Environment Program, Amsterdam, Netherlands. 56 pp.

Jacobs, J. 2000. "The Nature of Economies." New York, NY: The Modern Library. 190 pp.

Johannes, R.E. 1980. "The ecological significance of the submarine discharge of groundwater." *Mar. Ecol. Prog. Ser.* 3: 365-373.

Johnson, C.Y., P.M. Horan, and W. Pepper. 1997. "Race, Rural Residence, and Wildland Visitation: Examining the Influence of Sociocultural Meaning." *Rural Sociology* 62: 88-110.

Jones, R.E. and L.F. Carter. 1994. "Concern for the Environment among Black Americans: An Assessment of Common Assumptions." *Social Science Quarterly* 75: 560-579.

Klineberg, Stephen L. 1998. "Environmental Attitudes Among Anglos, Blacks, and Hispanics in Texas: Has the Concern Gap Disappeared?" *Race, Gender & Class* 6: 70-82.

Krieg, E.J. 1995. "A Socio-Historical Interpretation of Toxic Waste Sites: The Case of Greater Boston." *American Journal of Economics and Sociology* 54: 1-14.

McQuaid, J. 2000. "Unwelcome Neighbors: How the poor bear the burden of America's pollution." *Times-Picayune*, New Orleans, LA (<http://www.nolalive.com/speced/unwelcome> - Retrieved 1/24/01).

Mohai, P. 1985. "Public Concern and Elite Involvement in Environmental-Conservation Issues." *Social Science Quarterly* 66(4): 820-838.

---

Mohai, P. and B. Bryant. 1992. "Environmental Racism: Reviewing the Evidence." *In:* (B. Bryant and P. Mohai, eds.) *Race and the Incidence of Environmental Hazards*. Westview Press, Boulder, CO.

Montague, P. 1998. *Sustainable Development, Part 2*. *Rachel's Environment & Health Weekly*, #625, Environmental Research Foundation, Annapolis, MD

PCSD (The President's Council on Sustainable Development). 1996. "Sustainable America: A New Consensus for Prosperity, Opportunity, and A Healthy Environment for the Future." Government Printing Office, Washington, DC. U.S.

Reay, W.G., D.L. Gallagher, and G.M. Simmons. 1992. "Groundwater Discharge and its Impact on Surface Water Quality in a Chesapeake Bay Inlet." *Water Res. Bull.* 28(6): 1121-1134.

Shao, G., J. Porter, D. Richardson, H. Shugart, B. Hayden. 1995. "Distributions of Land Cover Types at the Eastern Shore of Virginia. Virginia Coast Reserve," Univ. Virginia, Charlottesville, VA. (<http://atlantic.evsc.virginia.edu/davedocs/VCRASC95/shaocov.html> - Retrieved 4/4/96)

Smutko, S. 1995. *An Operational Model of Regional Sustainable Economic Development*. Ph.D. Dissertation submitted to Graduate Faculty of Auburn Univ. Auburn, AL. 96 pp.

Stretskey, P. and M.J. Hogan. 1998. "Environmental Justice: An Analysis of Superfund Sites in Florida." *Social Problems* 45: 268-87.

Thomas, J.P. 1995. "Remote Sensing and Relating Coastal Development to Living Marine Resources and Their Habitats." *Natural Areas Journal* 15: 21-36.

United Nations. 1992. "Agenda 21: Report of the United Nations Conference on Environment and Development." Paragraph I.4. ([gopher://gopher.un.org:70/00/conf/unced/English/a21\\_indx.txt](http://gopher://gopher.un.org:70/00/conf/unced/English/a21_indx.txt) - Retrieved 10/20/00)

---

United Nations. 1997. "Programme for the Further Implementation of Agenda 21." (<gopher://gopher.un.org:70/00/ga/recs/spec/RES-S19.2> - Retrieved 10/2/00)

U.S. Environmental Protection Agency. 1996. "Explanation of EJ Issues and Concerns: What is Environmental Justice?" ([http://www.epa.gov/R5Super/ej\\_dfn.htm](http://www.epa.gov/R5Super/ej_dfn.htm) - Retrieved 2/10/01).

Valiela, I., J. Costa, K. Foreman, J.M. Teal, B. Howes, and D. Aubrey. 1990. "Transport of groundwater-borne nutrients from watersheds and their effects on coastal waters." *Biogeochemistry* 10: 177-197.

Virginia Tourism Corporation. 1996. *Economic Impacts of Travel in Virginia Cities and Counties, 1988-90*. Virginia Economic Development, Richmond, VA. 7 pp.

Wigley, D.C. and K.S. Shrader-Frechette. 1995. "Environmental Racism and Biased Methods of Risk Assessment." *Environmental Racism Data Base* (<http://www.fplc.edu/RISK/vol7/winter/wigley.htm> - Retrieved 2/10/01)

World Commission on Environment and Development. 1987. "Our Common Future." Oxford, UK, Oxford University Press. pp. 43 (Known as the Brundtland Commission)

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Presently Warren Flint serves as Owner and Principle Scientist for Five E's Unlimited (<http://www.eeeee.net>). This consulting firm provides international leadership in developing research, education, management, and policy strategies toward achieving sustainable natural resource protection, adaptive watershed management, and environmental conservation goals, as defined by governments, corporations, academic institutions, communities, and non-governmental organizations. As a sustainable development specialist and environmental scientist, Flint assists regions in creating authentic choices and providing effective responses to environmental decline, weakened economies, and community separation through cross-disciplinary scientific inquiry, facilitation of conflict resolution, and community/group consensus-building. In recent years Flint has worked with groups and organizations nationally and internationally on community-based environmental management planning to address rural economic development in environmentally sustainable manners

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