

Qualitative and Quantitative Assessment of Land-Use Managers' Attitudes Toward Environmental Justice

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ABSTRACT / On 11 February 1994, President Clinton signed Executive Order 12898 "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." Under the order, 17 federal agencies and offices are required to compile information about the race, national origin, and income of populations in close proximity to federal facilities that may have a significant effect upon ecosystem and human health. The goal is to protect historically disenfranchised groups from being disproportionately impacted by negative externalities associated with federal actions.

This study examines the outcome of efforts to educate federal land-use managers about their roles in implementing the

Executive Order in their respective districts. The managers participated in a 6-h Nominal Group Technique (NGT) workshop where they were instructed to weight environmental justice issues versus others associated with hazardous waste problems in their districts. Participant responses were quantified and analyzed through a series of rounds. After each round, participants received increasing amounts of information on environmental justice issues.

It was hypothesized that the managers would come to a consensus that environmental justice is an important issue that should be seriously addressed. Prior to administering the NGT, the managers appeared to have limited knowledge of environmental justice issues and thus assigned relatively low rankings to such concerns. After being "educated" by viewing films on environmental justice and reading related literature, in general, managers' weightings decreased and a narrower consensus developed.

The authors conclude that exposure to the issue may not be as effective as expected in convincing land-use managers to become sensitive to justice issues so that they may effectively implement the Executive Order.

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KEY WORDS: Environmental justice; Environmental education; Executive Order 12898, Nominal Group Technique; Land-use planning

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Background on US Environmental History and Environmental Justice

The application and philosophy of environmental science has moved through various stages over the past several centuries. In reaction to the widespread resource exploitation brought by the Industrial Revolution, a consciousness of environmental preservation and conservation was born during the late 1800s and early 1900s. This period in the United States was marked by the establishment of the National Park system and the Sierra Club. John Muir, Gifford Pinchot, and others worked to preserve the nation's natural wonders for the enjoyment of generations to come. In response to the massive agricultural devastation wrought by the 1930s Dust Bowl, the Soil Conservation Service was created. The philosophy of preservation and conservation was predominant among environmentalists until the post-World War II period.

After the World War II, the nation embarked upon a love affair with chemicals. Products such as leaded gasoline, DDT, and asbestos were lauded as being significant ingredients in the modern American lifestyle. Study and understanding of atoms progressed, and many believed that the dropping of atomic weapons on Japan saved American soldiers' lives. In 1949, Aldo Leopold was literally a voice in the wilderness as he attempted to warn the mainstream of the potential long-term harm potentially associated with continued unchecked environmental exploitation. However, over a decade would pass before the general public would be made acutely aware of the negative externalities of technological growth through the words of Rachel Carson in *Silent Spring*. Carson's work in part spawned the "Environmental Revolution" of the 1960s which culminated with Earth Day on 22 April 1970 and the institutionalization of the grassroots movement's goals through the establishment of the Environmental Protection Agency (EPA) and the National Environmental Policy Act (NEPA).

Running concurrently with the Environmental Revolution was the Civil Rights Movement. Despite both of them being "people's" movements in the quest of justice and legal protection, their paths never crossed. The Civil Rights Movement was led primarily by middle- and low-income African Americans, while the Environmental Revolution was primarily the turf of affluent college-educated whites. However, during the early 1980s, at Warren County, North Carolina, the two came together. Warren County, a predominantly African American community, had been targeted for the disposal of PCB-contaminated soil. The residents teamed with environmental activists in nonviolent direct action

against the dump. Women and children lay down in the roads in front of trucks loaded with contaminated soil. The incident soon gained the nation's attention and is regarded by many as the start of the Environmental Justice Movement.

Throughout the 1980s community leaders, academics, and religious organizations fought to force the federal government to recognize that people of color were not enjoying equal protection under the nation's many new environmental laws. In 1990, Dr. Robert Bullard, an environmental sociologist published *Dumping in Dixie*, which includes an in-depth analysis of cases involving unfair environmental degradation suffered by residents in several African American Communities (Bullard 1990). In 1991, Bullard, accompanied by a 600 other activists, organized and participated in the First National People of Color Environmental Leadership Summit in Washington, DC. During the conference a 17-point plan of action was developed addressing environmental justice issues linked with race, ethnicity, and socioeconomics. A 1992 investigative report in *The National Law Journal* concluded that the US EPA was less strict in its enforcement of environmental laws for polluters in minority communities than in white communities (Lavalle and Coyle 1992). The US EPA (1992) responded with a report entitled *Environmental Equity: Reducing Risk for All Communities*, which included recommendations for maintaining information for assessment of environmental risks faced by minority communities and methods to characterize the demographics of at-risk populations. Soon afterwards, the EPA's first Office of Environmental Justice was established.

In 1994, President Clinton signed Executive Order 12898 (EO 12898), which required 17 federal agencies to ensure that their actions do not result in disproportionate negative environmental impacts upon poor and minority communities. The designation of EO 12898 presumably set the EPA on a new course as Administrator Carol Browner wrote in a recent annual report "I established environmental justice as a guiding principle in EPA decision-making" (US EPA 1995). In late 1997, in order to bolster the effectiveness of the Executive Order, the US EPA established guidelines for the implementation of NEPA per EO 12898 (US EPA 1997). In early 1998, the US EPA put forth instructions for environmental permitting under the auspices of the 1964 Civil Rights Act (US EPA 1998). The objective of the permitting policy was to make certain pollution permits illegal if it is discovered that its issuance contributes to disproportionate negative impacts upon minority communities. The US EPA's latest actions in support of environmental justice interests have been

met by protests from state governments and industry groups (Environmental Council of the States 1998).

Land-Use Managers' Attitudes and Application of EO 12898

In order for the goals of EO 12898 to be met, it is of utmost importance that those responsible for its implementation understand the parameters of the issues and have some degree of concern for potentially impacted communities. It was hypothesized that, in general, federal land-use managers knew little, if anything at all, about environmental justice. It could then be assumed that without formal exposure or education on the issue, the managers may be resistant to following through with the policy on the ground, especially with regard to citizen participation.

In cases where managers' decisions may impact a local ethnic or socioeconomic group, public involvement is imperative. The application of EO 12898 requires that the public effectively cooperate with federal agencies. The importance of public involvement in environmental decision-making is emphasized by Armour (1991), Harless (1991), John (1994), Sinclair and Diduck (1995), Emmerling-DiNovo (1996), and the US EPA (1996). Among the most important reasons for community involvement cited by several of the above authors is the avoidance of public protest. With communities of people of color becoming increasingly sensitive to environmental issues, the potential for them to recognize or suspect environmental inequity is fairly certain. Attempts by insensitive agencies to exclude minority voices from the decision-making process will likely be met with a significant level of outrage and resistance.

Examination of Land-Use Managers' Attitudes Toward Environmental Justice Issues

A participatory exercise was developed for a group of 21 federal land-use managers whose agency is among those required to follow the guidelines of EO 12898. The goals of the exercise were to: (1) assess the managers' knowledge of environmental justice issues, (2) assess the managers' sensitivity toward the issue, (3) expose the managers to multimedia sources on environmental justice, and (4) determine how exposure to the issue affects the managers' attitudes.

Characteristics of Land-Use Managers' Group

The managers' educational levels ranged from high school diploma to doctoral degree. Subjects' education and training was predominantly in areas such as natural

resources management and physical science. The sample was geographically culled from the western and southwestern continental United States and Alaska. There was an equally broad range in terms of work experience with the agency (from 2 years to more than 25). Notable was the total absence of any representatives from communities of people of color and the relative absence of women (only one of the latter).

Perhaps the most striking aspect of the biographical data is the relative dearth of two factors that are highly correlated with sensitivity and effectiveness on environmental justice issues. The first is the few instances of community involvement and experience in working with nonscientific, nontechnical communities of knowledge in one's job or educational experience. Environmental issues inescapably involve dialog between the technical land-use bureaucracy and the culturally specific and economically bound knowledge communities of people living in the affected areas. The overemphasis on physical science and the lack of a mandate for human interaction components beyond the on-the-job training programs bodes ill for the capacity of the managers to collect vital information concerning the effect of current environmental policies and procedures and, where necessary, to make adjustments to accommodate newly recognized needs and concerns. Second, the lack of general community training is punctuated and accentuated by very little mention of multicultural exposure and sensitivity, which is vital given the demographic nonrepresentativeness of the group and the character of the most adversely affected socially subordinated groups with respect to the environment.

Land-Use Managers' Knowledge of, and Attitude Toward, Environmental Justice Issues Prior to Exercise

Prior to participating in the exercise, the land-use managers were assigned selected readings on public participation, environmental justice, and a copy of EO 12898. After reading, they were asked to speak to the "validity" of environmental justice issues for their agency. Eleven of the managers responded by writing that environmental justice is, in general, not a relevant issue for their agency. Some identified the issue as being an urban one primarily associated with African American communities. Since the domain of the agency is primarily in parts of the United States having below-average black populations, it was assumed that the issue did not exist. The remaining nine who accepted environmental justice as a pertinent concern primarily cited cases involving Native American lands. A recurring theme among those denying inequity issues was that

problems exist only when negative impacts are visited directly upon groups of people of color. Cases where undesirable activities such as mining or logging are practiced on federal land immediately adjacent to Native American lands were not, by and large, considered to represent environmental inequity. In general, with only one or two exceptions, the participants did not seem to be very well versed on environmental justice topics at all. It was suspected that for many, this was their first exposure to the issue.

In-Depth Analysis

What is more disturbing, however, is the set of comments by various managers that suggest that they are unlikely to be educable concerning issues of environmental justice given their perception of the problem. Several examples are excerpted here:

Through our NEDA documentation, we address issues of impact to populations or communities as a whole. We don't normally break out special groups and discuss impact to them. Our view is to treat all groups of people the same.

This respondent goes on to say:

Environmental justice is only valid in areas of the country where certain groups of people . . . are considered different.

What is disturbing about these comments is that the individual sees identification of the special needs of particular communities adversely effected by environmental issues as a type of unwarranted "discrimination." Environmental discrimination, however, by definition adversely affects specific communities defined socially by various ascriptive criteria. If one cannot specifically focus on the needs of those particular communities without resorting to an illusory holistic analysis (that assumes that there is no degree of disproportionality and inequality in adverse environmental effects), one is at a loss for truly effective ameliorative remedies. Moreover, the belief that there is a realm within the context of the United States where there is no recognition of ascriptive difference with respect to environmental issues contradicts what we know about the widespread nature and persistence of environmental inequalities.

A second respondent commented thus:

With the exception of a few metropolitan areas . . . , past practices rather than current hazardous waste problems throughout [the state] was more of a coincidence than the actual location of landfills/hazardous waste sites based on race, income level, or minority.

He goes on to list a whole host of social-structural factors influencing both indigenous peoples' behavior

("poor sanitation practices") and the current environmental conditions. These include the high cost of back-hauling, the high costs of disposal, and dumping by the military. So while this individual's concern with environmental issues is laudable, the lack of a structural perspective makes it more likely that future environmental justice problems will be seen as "coincidences" of history.

A third respondent goes even further, in fact, rhetorically explaining away environmental racism and lambasting the "one-sidedness" of the preliminary material:

. . . [F]ew Americans . . . will 'roll over' and allow themselves or their homes to be ruined. . . . People just do not allow themselves to be victims anymore. . . . American Indian lands are sovereign. They have full control of any activity on those lands. Without their consent, no landfill could be built.

Later, the respondent specifically excludes activities like grazing, mining, and recreation from environmental justice consideration. Clearly, this person is a reductionist in arguing for indigenous sovereignty and reveals an overwhelming lack of knowledge about the reservation system. This lack of cultural awareness is coupled with the assumption that demand is driven directly by assent and consent rather than, in some cases, lack of information, political and economic expediency, etc. The discussion can be summarized as an illustration of the "blaming the victim" thesis and little optimism is offered by the parting statement that these comments were intentionally made to drive controversy rather than clarity.

Such sentiments are echoed by another writer who argued that it was the prevalence of economic considerations that led to environmental injustices. However, the individual seemed resigned to the fact that "that's the way it is." An explicit statement is made that waste facilities need to be located for environmental soundness without regard to who lives there. A concordant voice indicated that the correlation of environmental injustice in culturally, racially, and/or economically subordinated communities did not constitute prejudicial causation. How such views will provide for considerations of environmental justice is an important concern.

This disregard manifested itself in the statement by one agency representative that his body simply had "too many other problems" to deal with environmental justice issues and that it "ignores the issues when possible." It is said to operate just "like the businessman" in the sense that the minimum possible amount of money is expended on cleanup efforts despite the severity of the problems.

Another official feels that the issue is not directly

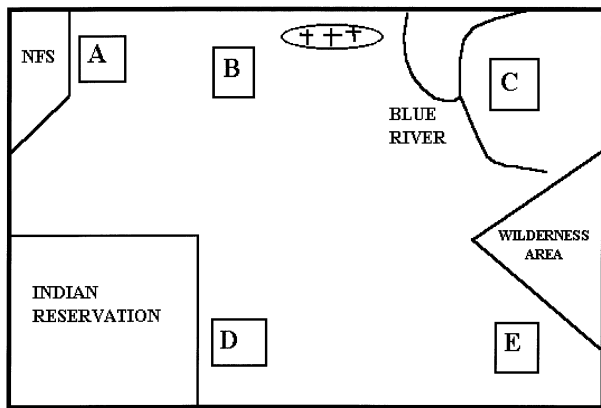


Figure 1. Schematic map used in the environmental decision-making scenario.

relevant to his jurisdiction, but has little optimism. This lack of optimism in this account, as in several others, is directly tied to a perception that congressional and state policy makers are not really concerned with the issue. The latter is an important point to note, because many of these officials are on the front lines of policy implementation. Their belief in the feasibility of support for and progress in alleviating environmental injustices is therefore critical.

In sum, the preliminary exercise suggests the need for innovative approaches in bridging both the information gap and the sensitivity gap for land-use managers if progress is to be made on environmental justice issues and if they are to play key roles. Most importantly, there appears to be a strong need for a clear presentation and explanation of environmental justice in its holistic conception as the total environmental context in which human begins live. This would include specific issues to which managers evidenced some awareness and sensitivity, such as federal regulations and cleanup operations. It would also include some greater understanding of the historical context of environmental issues in their jurisdictions and the structuralist framework for analyzing the development of environmental justice problems.

Implementation of Environmental Justice Exercise

The agenda for the exercise and discussion of selected results are listed below:

Step 1. Introduction to Environmental Decision Scenario

Managers were given a scenario with a schematic map including five potential sites for leasing of federal land for a gold heap-leach mining operation (Figure 1).

Heap-leach mining involves extensive denudation of land surfaces and the use of massive quantities of hazardous chemicals. The environmental impacts associated with such operations are quite significant (Satchel 1995). Each site was assumed to be equal with regard to potential productivity. Site A is located near a National Forest. Site B is located near a historical site. Site C is near a surface-water feature. Site D is on land adjacent to an Indian reservation. Site E is near a federally designated wilderness area. Managers were charged with deciding as a group which site would be most suitable for mineral development. Parameters upon which the decision could be made included protection of surface water, protection of historical resources, protection of endangered species habitat, protection of forest land, and environmental justice.

Step 2. Nominal Group Technique (NGT)

Immediately after being introduced to the scenario, the participants were instructed to quantify their attitudes with respect to the environmental justice parameter via the NGT. The NGT is defined by Thrall and McCartney (1991) as an iterative decision-management strategy often used in conflict resolution. The goal of the NGT is to bring the group to some consensus on a given issue and then to quantify the consensus. It was assumed that with increased exposure to environmental justice-related information the managers would mutually agree that concerns of people of color communities should weigh relatively heavily in the decision-making processes. If so, then the managers may be open to effectively applying and working toward the goals of EO 12898.

In the first of three rounds, the managers were given cards and asked to write on the cards in confidence a number from zero to 100 indicating the importance of environmental justice issues in the decision for selecting a new mine site relative to the other parameters involved. Results are shown in Table 1. Lower scores indicated lower importance. Of specific concern was whether the site located on land adjacent to the Native American land would be considered less desirable due to potential negative impacts upon the human environment there. The level of concern for the Native Americans in the study area would provide some indication of the managers' potential for effectively applying EO 12898.

Step 3. Introduction to Environmental Justice Issues

After the first round, the scores were analyzed. The group was then provided a 30-min update on the current status of the environmental justice movement

Table 1. Participants' ratings for environmental justice issues in environmental decision-making scenario

	Round		
	1	2	3
	0	0	0
	0	0	0
	12	12	10
	18	18	11
	21	18	14
	25	20	18
	25	25	25
	30	40	38
	40	40	40
	50	45	41
	50 Median(50)	50 Median (47.5)	45 Median (43)
	53	50	50
	55	60	50
	70	60	60
	70	60	60
	77	70	70
	88	79	75
	90	80	81
	95	100	100
	100	100	100
Mean	48.05	46.29	44.19
Standard deviation	30.25	28.80	29.27
Mean w/o extremes	47.88	45.41	42.82
Standard deviation w/o extremes	23.87	20.79	21.46

and EO 12898. They also viewed a portion of the film "Toxic Racism," which covers historical background on environmental justice issues and several recent case studies. It should be noted that one of the managers refused to participate in the exercise, thus there are only 20 respondents in the data at Table 1.

Step 4. Analysis and Discussion of Round 1 Results and Beginning of Round 2

The group was then provided with the mean rating from the first round (48.05), the standard deviation (30.25), and the median (50.0) (Table 1). Discussion followed with goal of bringing those with extreme opinions (0–20) and (80–100) into closer consensus with the group. Following a lengthy discussion, round 2 was begun with managers being asked to reconsider their ratings from round 1.

Step 5. Analysis and Discussion of Round 2 Results and Beginning of Round 3

After round 2, concern for environmental justice issues among the group decreased slightly to a mean

value of 46.29 and a narrower range of consensus with a standard deviation of 28.80 (Table 1). The median dropped to 47.5. Discussion followed along with the viewing of another portion of the film "Toxic Racism." The results of round 3 indicated further decreasing concern for environmental justice issues with the mean score dropping to 44.19 and the standard deviation remaining steady at 29.27 (Table 1). The median fell again to 43.

Quantitative Analysis of Exercise Results

The results of the exercise suggest that the participants became less sensitive to environmental justice issues with increasing levels of exposure. This may indicate a somewhat problematic scenario with regard to the application of EO 12898 by these particular managers. One may assume that in a situation involving increasing levels of community opposition, the managers may become, in turn, increasingly closed-minded. What is particularly disturbing is that two participants rated environmental justices at a level of zero throughout the exercise, and one actually refused to take part at all. Removing the two high (100) and two low (0) extremes results in an even lower mean and much narrower standard deviation (Table 1). Thus, it may be determined that the general consensus among the core of the group was that environmental justice issues are not of significant concern.

Conclusion and Strategies for Improving Land-Use Managers' Attitudes

In general, the participants seemed uncomfortable with the idea of discussing race/ethnic issues. At the very beginning of the exercise, the first question raised was "Why do we have to do this?" Throughout the exercise the participants incessantly criticized the facilitator's methods and materials. At one point, a ranking supervisor had to cut off the sniping so there would be time to complete the exercise.

The intangible issues relating to the participants' response to the facilitator and the materials used cannot be adequately discussed in this format. Further analysis by specialists in social behavior may be able to point out a prejudicial trend. Despite the relatively negative response to the exercise, several of the participants did mention that their knowledge and awareness of environmental justice increased significantly.

With regard to the managers' potential for effectively implementing EO 12898 and involving the public, the results of this study do not bode well. Currently, the EO has a lot of promise but apparently little effect. From

this analysis it appears that simple, noncoercive cooperation from certain land-use and/or resource managers is unlikely. It is possible that a more coercive approach, or at least a cooperative-coercive approach (per Garrett Hardin) may yield more positive results.

Ordinarily, it would be safe to assume that increased exposure to different ideas and cultures would increase one's empathy and understanding. However, this case garnered a very different outcome. Obviously, increased isolation from environmental justice and the communities involved is not a feasible answer. Perhaps a different approach involving representatives from groups of people of color would help . . . or it could further polarize the issue. Perhaps if the facilitator were of European descent, the managers would have been more receptive.

It appears that this study has raised as many questions as answers. It is hoped the results are more indicative of the method of presentation than the inherent ingrained prejudices held by the participants. If the latter is true, then there is little hope for the successful application of EO 12898.

The comment below, by a mining corporation official working with federal land-use managers in a mine site dispute versus the Spokane tribe, may be an indication of the present state of affairs regarding federal agency implementation environmental justice policy:

I grew up with these people (Spokanes). When I first heard (the allegation of) environmental racism. I frankly thought . . . are they talking about the Indians? I never considered them a minority. It was surprising, like something you'd see on "60 Minutes," the racial issues and whatnot [Selcraig 1998].

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