

## Facing the Music: Ethical Implications of the Loss of Tuvalu to Global Warming

Gordon Rands, Barbara Ribbens & William Maakestad  
Department of Management, Western Illinois University

A fundamental aspect of corporate social responsibility is the ethical responsibility of a corporation to compensate other parties for harm caused. Compensatory justice is a fundamental ethical principle (DeGeorge, 1999) used to address environmental issues such as hazardous wastes (Steidlmeier, 1990).

Global warming raises enormous challenges for corporations applying principles of ethics and social responsibility to questions of sustainability. How do we compensate people for losses from global warming? The 10,991 citizens of Tuvalu are now preparing to evacuate their nine low-lying atolls, becoming the first refugees of global warming (Che, 2001). Tuvalu, best known for selling its national web domain --.tv -- (Johnson, 2000), with a maximum elevation of 5 meters above historic sea levels is rapidly becoming uninhabitable.

Che (2001) asks "Can there be compensation for the loss of a country, its history, its culture and its way of life?" What are the psychological and social costs? How can ethnic identity be preserved? What is the economic value of direct and indirect harms inflicted on the people of Tuvalu? Clearly these harms are not of Tuvalu citizens' own making; does compensatory justice require compensation for the harms unintentionally inflicted on them by others. If so, who should bear the burden of these costs: governments or corporations? To others, these are academic questions, but to the citizens of Tuvalu these are urgent, real issues. Since a one meter rise in sea level could displace at least seven million people worldwide, we need to face the music we have written with our environmental mistakes and consider constructing fair remedies for the people of Tuvalu and others who may suffer a similar fate until our greenhouse gas emissions reach sustainable levels.

This paper will first examine global warming and the situation created for small island nations by the rising sea levels and resulting climactic changes. Then we summarize the situation of Tuvalu in particular and why this particular island is vulnerable to global warming. We will briefly describe the cultural and economic situation of this island nation. Then we will analyze the situation of Tuvalu through different ethical lenses. Finally we explore the role of legal action and compensatory damages in this situation.

### Global Warming

As is well known, global warming refers to the increase in average global temperature due to emissions of "greenhouse gases." The increased concentration in the atmosphere of greenhouse gases absorbs heat in the atmosphere and slow its radiation into space. Major greenhouse gases are carbon dioxide, methane, nitrous oxide, and synthetic compounds such as fluorocarbons. While the least heat-absorbing, carbon dioxide is the most significant of these because of the tremendous amount of CO<sub>2</sub> present in the atmosphere. Human activities, especially the burning of fossil fuels for electricity generation and transportation has added trillions of tons of CO<sub>2</sub> to the atmosphere. Atmospheric concentrations of CO<sub>2</sub> appear to have increased by approximately 31% since 1750 (IPPC, 2001). The United States and Australia each had 1995 greenhouse gas emissions of approximately 6.6 tons per person per year (EPA, Individual Emissions, 2001), the highest per capita emissions in the world.

There is a general scientific consensus that global average surface temperature has risen by at least .6 of a degree Celsius (over 1 degree Fahrenheit) during the past 120 years (Karl & Trenberth, 1999), and that the 1990s are the hottest decade for which records exist. The Intergovernmental Panel on Climate Change has issued three reports on global warming. Its most recent report, issued in the spring of 2001, presents evidence of the following additional changes:

- temperatures have risen during the past four decades in the lowest eight kilometers of the atmosphere
- snow cover and ice extent have decreased
- global average sea level has risen and ocean heat content has increased
- various other aspects of climate appear to have changed in the past century (IPCC, 2001)

While the IPCC notes that certain aspects of climate do not appear to have changed, it notes that the scientific accuracy of climate models has improved significantly in the past decade, and the confidence in the models to predict future climate conditions has increased. Its report predicts that over the next 100 years, average surface temperatures will increase between 1.4 and 5.8 degrees Celsius (2.5 and 10.4 degrees Fahrenheit). Accompanying climate changes are predicted to include:

- regional changes in precipitation, with larger than present annual fluctuations
- increased incidence of extreme weather events such as high temperatures and droughts
- continued decreases in Northern Hemisphere snow and ice cover
- global mean sea level rise of between .09 and .88 meters

This last impact may seem like a relatively inconsequential change to residents of most nations. But for those who live in small island nations and low lying coastal areas, the projected rises in sea level due to global warming are indeed alarming. Approximately 1 billion people live at sea level or no more than a few meters above it, largely in poor nations of north and west Africa, south and southeast Asia, and the coral atolls of the Pacific and Indian Oceans. These persons would be at risk of displacement due to direct inundation, coastal erosion, more frequent flooding, and storm surges (Hinrichsen, 2000). Thus, global warming-induced sea level rise will likely lead to a wave of environmental refugees, by the middle to end of the 21<sup>st</sup> century. This wave of refugees is likely even with the adoption of the Kyoto Treaty by most of the world's industrial nations (other than the United States and Australia) on July 23, 2001. According to atmospheric scientist Robert Dickinson, "any reductions in CO<sub>2</sub> that are expected to be possible over [the next 100 to 200 years] will not result in a cleaner atmosphere and less global warming than we see today for at least a century" due to the amount of CO<sub>2</sub> that is already in the atmosphere (UniSci, 2002). The residents of the Pacific island of Tuvalu may well be, in the very near future, the first of millions of refugees of global warming.

## Tuvalu

Tuvalu is an island nation consisting of nine low-lying atolls in the South Pacific. It is approximately midway between Hawaii and Australia lying just south (8 degrees) of the equator. The highest point in the nation of Tuvalu is approximately five meters above sea level. Historically, Tuvalu was a British colony and was formerly a part of the Gilbert Islands. Ethnic differences between the groups of Polynesians led to a separation from the Gilbert Islands in 1974. Tuvalu became an independent nation in 1978, but remains a part of the British Commonwealth (CIA, 2002).

Geographically, the island has historically faced few tropical cyclones, due to prevailing wind patterns diverting storms away from Tuvalu. However, in 1997 three cyclones blew across the low lying islands, submerging them with its storm swell. This change in weather patterns is one threat to the continued habitation of these islands. If rough weather coincides with high tides, much of Tuvalu can be underwater. For example, in February of 2000, high spring tides which were 3.2 meters above normal sea level combined with rough weather and threatened to put much of Tuvalu's land under water for up to six hours (BBC News, 2000).

Another major threat is the rising sea levels. Given the low lying nature of the islands, a small sea level change can greatly reduce the amount of land inhabitable. Tuvalu is composed of nine coral atolls, which form when coral grows on an old volcanic cone as it sinks under the sea. While some cones have filled centers, many have deeply hollowed centers which then form lagoons inside the coral ring. Unlike a volcanic island which has substantial vertical relief, a coral atoll usually barely rises above the surface of the ocean. Further, the atoll soil is composed of unstable and unproductive coral rubble. Thus, a small rise in sea level will result in a great loss of Tuvalu's land surface. Finally, salinization of the land from salt water incursions and salt spray are reducing usable ground water and arable land which is already in very short supply (BBC, 2000).

These islands together contain approximately 25 square kilometers of inhabitable surface. The current population is 10,991 (2001 estimation) with a modest population growth rate of 1.4% (CIA, 2002). Thus, the current population density per square kilometer is about 423. This compares to the Netherlands at 472 and China at 137 (using 2001 estimates from CIA, 2002).

The majority of the Tuvaluans do subsistence farming and fishing. The main sources of income for the government are the sale of stamps and coins, as well as subsidies from a variety of other governments. Historically many Tuvaluans went to Nauru to work in phosphate mining, but with that industry in decline, this source of external income has been reduced. A trust fund for Tuvalu was set up in 1987 by Australia, NZ, and the UK, supported also by Japan and South Korea. Tuvalu also receives some fishing treaty payments from the United States. These external payments cover about half of the costs of running the Tuvaluan government (Microsoft Encarta, 2001).

In 1998, Tuvalu began receiving royalties for use of its area code for "900" calls by Hong Kong firms (CIA, 2002). This practice was protested by Tuvaluans when they learned the numbers were being used for phone sex and it has been discontinued. In 2000, Tuvalu leased its Internet domain name (.tv) for \$50 million in royalties over a period of twelve years (Johnson, 2000). These innovative uses of technological resources have provided an increasing GDP per capita from a 1999 estimate of \$1100 per capita to three times that by 2011 (CIA, 2002).

In the past few years with the combination of increased cyclones and rising sea levels, Tuvalu has experienced loss of land available for food production and increased coastal erosion

(Boyd, 2001). In response to this increasing threat, the Tuvaluan government began negotiations with both Australia and New Zealand for relocation of the entire Tuvaluan population. Australia has since refused to accept the Tuvaluan people, but it is believed that New Zealand is still working out details in private negotiations to accept all 10,991 citizens of Tuvalu (NPR, 11/15/01). Migration is expected to begin as early as 2002 and will perhaps extend over a 30 year period unless worsening conditions force moving more quickly (Kirby, 2001).

### The Ethical Viewpoint

Business ethicists tend to emphasize five major ethical theories: utilitarianism, rights theory, justice theory, virtue ethics, and the ethics of care (Velasquez, 1998). These are in turn grouped into two or three categories. *Consequentialist* theories, such as utilitarianism and egoism (which is held in low regard by ethicists, but is nonetheless significant), argue that it is the consequences or outcomes of actions that determine their morality. *Deontological* theories, such as rights and justice, argue that moral actors have certain duties and obligations of how to act, independent of the potential consequences of the action. Some ethicists categorize virtue ethics, which focuses on the cultivation and expression personal characteristics such as honesty, compassion, integrity and loyalty, as a deontological theory (Hartman, 2002), while others categorize these as a *human nature* approach to ethics (Donaldson & Werhane, 1999). The ethics of care is regarded by many philosophers as being closely related to virtue ethics (Beauchamp & Bowie, 2001), and for this paper will also be considered to take a human nature approach to ethics. While this paper will emphasize a justice analysis of the question of what actions are ethically required to respond to the threat of global warming induced evacuation of the Tuvaluans, each of the theories listed above will be briefly applied to this situation, beginning with the consequentialist theories, and concluding with deontological theories.

*Egoism:* Egoism argues that a moral actor should take whatever course of action is best for the actor; in other words, to always act out of self interest. This of course leads to different actors taking competing actions. In the case of Tuvalu, egoism suggests that the Tuvaluans should sue for redress, and that the Australian and other governments should probably refuse to accept Tuvaluan refugees (and certainly refuse to give them land). Furthermore, egoism would seem to suggest that if the economic costs of reducing greenhouse gas emissions to the citizens of any particular nation (or the stockholders of any particular company) are greater than the benefits derived from such reductions, that these parties should refuse to reduce emissions. In essence, egoism at the national scale appears to describe the actions of President Bush in March 2001 when he refused to agree to comply with the Kyoto protocol, stating that doing so would hurt the U.S. economy.

*Utilitarianism:* Like egoism, utilitarianism determines the morality of a course of action based on its consequences, but unlike egoism, it focuses on the impacts for society as a whole. In a highly interdependent world, we must increasingly frame society not in national terms, but in global terms. Utilitarianism would therefore argue that any course of action that produces more benefits than harms for global society is an ethical course of action, and that the most ethical course of action is the one that produces the greatest global net benefit. (Some even argue that utilitarianism must adopt a perspective that considers the benefits and harms for multiple future generations, or even for non-human species). Needless to say, conducting a high-caliber

utilitarian analysis, particularly on a global level, is unbelievably complex. We believe that it is likely that such an analysis would argue that stabilizing global climate through dramatically reducing CO<sub>2</sub> emissions would create a significant net benefit for the people of the world. While the costs of dealing with millions of environmental refugees will be enormous, the costs of dealing with a few thousand may not be, however. This is particularly the case when considering the extremely dramatic measures that would likely be required to prevent any further rise in sea level given the amount of CO<sub>2</sub> already in the atmosphere. Since utilitarianism considers only net societal benefit, rather than distribution of harms and benefits, the harms experienced by the people of Tuvalu, and likely by moderately large numbers of future refugees from rising sea levels, will be a regrettable but “acceptable” harm in a utilitarian analysis. Attempting to compensate these refugees would, to a point, likely be much less expensive than attempting to halt future sea level rises, and thus morally preferable in the utilitarian calculus.

*Virtue Ethics:* Virtue ethics calls on the moral actor to live in such a way that praiseworthy personal characteristics (the virtues) become an integral part of the actor, and are manifested in habitual action. One philosopher has suggested that “six considerations make up the framework for virtue ethics in business: community, excellence, role identity, holism, integrity, [and] judgement” (Solomon, 1999, p. 85). Many virtues are commonly identified by philosophers, including such traits as benevolence, prudence, cooperation, dependability, humility, loyalty, perseverance, self-control, compassion, fairness, moderation, helpfulness, magnanimity and shame. The application of the virtues to the issue of global warming would almost certainly call for taking significant – even radical – action to dramatically reduce greenhouse gas emissions. Nations and companies that are economically well off and whose actions have been particularly responsible for the creation of the problem would apply virtues such as fairness, cooperation, and magnanimity to shoulder high levels of responsibility for such reductions. If it were not possible to prevent further rises in sea level, application of the virtues would likely lead these actors to take particular responsibility for the subsequent welfare of environmental refugees, either through allowing them to immigrate and/or by providing substantial financial assistance for relocation and starting off a new life.

*Ethics of Care:* The ethics of care emphasizes a more limited set of human traits: empathy, compassion, fidelity, friendship and love (Beauchamp & Bowie, 2002). In addition, the ethics of care suggests that it is natural and desirable that human beings have particular concern for those who are close to them in some way (especially through family relationship or friendship), as well as for those who have little economic, political or social power. This perspective criticizes theories such as utilitarianism and rights for the emphasis they place on strict impartiality. While the rich nations of the north may have little emotional or physical proximity to many of the poor nations most at risk from global warming, they would nonetheless be motivated by an ethic of care to take actions either to prevent or limit sea level rise, or to at least alleviate the suffering that would result, due to the poverty of most of those who are most at risk. Nations would likely have particular empathy for those with greater proximity or relationship. Thus the United States might take particular responsibility for assisting residents of Caribbean Islands or of former U.S. Trust Territories such as the Marshall Islands. Australia, as the nearest rich nation, would feel a particular responsibility to aid the people of Tuvalu.

*Rights Theory:* The essence of rights theory is that individuals have certain rights, and that other moral actors have corresponding obligations to respect these rights. While governments focus on the existence of legal rights, philosophers argue that stronger consideration should be given to moral rights, or human rights, which accrue to all persons simply as a result of being human. (Whether non-human animals, plants, or ecological communities have rights is a question that is very germane to the treatment of global warming and other environmental issues; however, we will not consider it here).

Rights are further categorized into *negative rights* and *positive rights*. The former are those rights that an individual will enjoy unless these rights are taken away from them; the corresponding duty of others is to not to interfere with the individual's enjoyment of those rights (i.e., to not take "negative action"). Positive rights, on the other hand, are those that an individual is not likely to enjoy unless another party takes special action to ensure that the individual enjoys such rights; the corresponding duty, therefore, is to take this positive action. For example, the oft-mentioned rights of "life, liberty, and the pursuit of happiness" are all negative rights. Happiness itself, however, is a positive right, as would be guaranteed provision of food or shelter. Philosophers generally regard negative rights as more basic and thus of greater priority than positive rights. When the rights of different parties conflict, as they inevitably will, the ethical course of action is that which protects the most important rights. This presents the difficulty of developing an agreed upon priority ranking of different rights, which has plagued rights theorists. Unlike utilitarianism, positive consequences experienced by many cannot justify loss of high priority rights by the few.

In the case of global warming and its impact on low lying nations, the rights of the inhabitants of these nations to life, liberty, and the reasonable pursuit of basic needs and simple happiness are negative rights, and thus of high priority. When compared with the rights of inhabitants of rich nations to pursue luxury wants and more extravagant levels of happiness, the rights of those at risk from global warming would certainly seem to take priority over those of citizens of the rich nations. Furthermore, since the loss of the rights of at-risk individuals can be largely linked to the fossil-fuel consuming actions of the inhabitants of rich nations, developed world citizens – especially citizens of the United States and Australia, the nations with the highest per capita fossil fuel consumption – are failing their duty to not interfere with the negative rights of potential environmental refugees. Action to attempt to prevent further sea level rise and loss of rights would thus appear to be a moral duty of the nations whose greenhouse gas emissions are to a substantial degree the result of the pursuit of wants rather than of needs. If prevention of displacement of the citizens of at-risk nations is not possible, it would further seem that rights theory would obligate rich nations to take such actions as are necessary to restore such rights to the environmental refugees. Again, this could take place through direct compensation of property, or of monetary compensation sufficient to purchase adequate property, and of such training (language, occupational, life skills, etc.) as might be needed in order to prepare the refugees to once again enjoy both liberty and a comparable ability to pursue basic happiness in their new surroundings as in those which had been lost.

*Justice:* The essence of theories of justice is that actions must be fair in order to be ethical (Velasquez, 1998). While on the face of it this is simple, there is substantial disagreement as to what the relevant characteristics are that determine fairness. Four common perspectives are that fairness requires equality (egalitarianism), that fairness depends on need (socialism), that fairness depends on contribution or effort (capitalism), and that fairness depends on free choice

(libertarianism). The situation is further complicated by the fact that justice operates in different arenas. Three arenas of justice are commonly identified: distributive, retributive and compensatory. To these a fourth is sometimes added: procedural. *Distributive* justice is concerned with the fair distribution of benefits and burdens in society (e.g., how much should a party pay in taxes and receive in access to government funded programs; how should the benefits and burdens associated with the production of a good or service be allocated, etc.). *Retributive* justice is concerned with affixing punishment for harm caused by a moral actor. *Compensatory* justice is concerned with attempting to fairly compensate a party who has been wronged. *Procedural* justice is concerned with specifying rules and policies to be followed in any of these other arenas to insure that the activities leading up to determinations of outcomes are conducted fairly.

*Distributive Justice:* Application of distributive justice to this case requires a determination of how the benefits derived from those actions that contribute to global warming, and the burdens of the adverse impacts of global warming – or, alternatively, the burdens of preventing further global warming and the benefits derived from the current climate – be allocated among parties in global society. Egalitarians argue that benefits and burdens should be distributed equally. Thus everyone should pay equally toward reducing global warming, and should benefit equally from a stabilized climate. Whether equal allocation of burdens translates to proportional or absolute reductions in emissions, or in proportional or absolute currency terms, would of course have to be specified. The failure of the Kyoto Treaty to require that developing nations shoulder an equal burden via reduced greenhouse gas emissions was, of course, one of the reasons that President Bush (and previously, members of the U.S. Senate) had objected strenuously to Kyoto. “Socialists” argue that those in the greatest need should receive the most benefits, and those in the least need should shoulder the greatest burdens. Under this perspective, emission reductions might be allocated on the basis of per capita national income, with the richest nations needing to reduce emissions the most, and the poorest nations needing to reduce them the least. “Capitalists” argue that “benefits should be distributed according to the value of the contribution the individual makes to a society, a task, a group or an exchange” (Velasquez, 1998, p. 108). Regarding global warming, this perspective would seem to suggest that the benefits generated by those activities which also emit greenhouse gases should be taken into account in any allocation of burdens. If the burdens from global warming are so great as to warrant reductions, then the burden of those reductions might be allocated in light of the benefits produced. Allocating reductions on the basis of the contributions of emissions to economic growth – the higher the economic value added, the lower the required reduction -- might be an approach suggested by advocates of the capitalist perspective. Libertarians would argue that any allocation of benefits and burdens freely agreed to is fair. Thus, according to libertarians, since all parties have not yet entered into a voluntary and binding treaty to reduce greenhouse gases, no fair allocation has yet been determined. Until such an agreement is reached it is thus also fair that parties not yet signatories to the treaty can continue to emit as much as they please. If other nations desire to entice non-participants to enter the treaty, they must be willing to adjust their demands until all parties can agree on an amount and procedure for reductions.

*Procedural Justice:* As the United States and Australia have not broken any agreed upon procedures or rules for the negotiation of treaties, it would appear that procedural justice has little to add to discussions of how the global warming issue should be addressed in this case.

*Retributive Justice:* Retributive justice focuses on punishment for wrongdoing. Velasquez (1998) identifies several conditions that must exist for punishment to be fair and just. These include awareness that harm was being caused, ability to stop causing the harm, certitude that the party being punished actually did inflict the harm, and punishments that are proportionate to the harm caused and are consistent. Disputes over the science of global warming could be called upon as a defense that a party was uncertain that harm was being caused. Lack of awareness that harm might be caused would be a difficult claim to make, however, since at least around 1988 in the United States. While stopping causing such harm would be difficult, it is clear that there are many alternative energy and energy efficiency technologies that could have been implemented over this time period in order to reduce the potential harm. Data exist to determine how much various nations and companies have contributed to increased greenhouse gas loading, and the science is improving regarding determining the amount of human-caused warming (IPCC, 2001). Determining that punishments are proportionate to the harm is of course difficult, particularly if certain parties are singled out. While the United States and Australia are the two highest global emitters of CO<sub>2</sub>, other parties have also clearly contributed to the harm caused to citizens of Tuvalu and other low lying nations. If punishment was affixed, there would be questions of what form this punishment should take. Possible punishments could include immediately beginning reductions, of paying fines to be used for remediation activities, of providing emission reduction technologies to other parties, and finally, of providing compensation to the parties that have been harmed. It is to this final question, the legal topic of how to administer compensatory justice in this case, that we now turn.

### The Legal Viewpoint

Traditionally, the social control of corporations in the U.S. has been a function of a combination of administrative and civil law, with the occasional deployment of criminal law for especially egregious cases of corporate malfeasance. In his classic treatise *Where the Law Ends*, Christopher Stone observed that although the first question asked about measures to control corporations is often *how well do the measures work?*, a more fundamental question would be *what are the measures trying to accomplish?* (Stone, 1975) Stone has written that the law generally seeks to accomplish one or both of two divergent, but not mutually exclusive, goals:

One goal is fundamentally *distributive*. When losses occur in society, the law aims to distribute them fairly and reasonably... If a car does not perform as adequately as the purchase was given fair reason to believe it would, the law, as an ideal, aims to place the unanticipated repair bills on the company's doorstep, rather than on the purchaser's.

But while making a corporation pay damages to persons it has injured is an important goal of the law, it is, in one sense, a secondary goal. A person who has received a cash settlement for the loss of his vision or his limbs has not really, as the law is fond of saying, "made whole."

Thus, what we should expect of the law, as a more primary goal, is that it reduce...the incidence of harm in the first place. This is what we might call its *reductive goal* (Stone, 1975, p. 30).

Stone's description of the distributive goal, of course, is essentially compensatory justice dressed up in the language of law and economics. Though he casts the law's distributive goal as secondary to its reductive goal, it should be emphasized that both are essential to any equitable, fully functioning legal system. For example, with respect to workplace deaths, the distributive goal—making fair compensation to the workers' families—is approached in many countries primarily through the operation of worker compensation laws. Fair determination and distribution of benefits is indispensable to any sense of workplace justice, of course. All Stone is saying is that in at least one important respect the distributive goal is really secondary to the reductive: efficiently lowering the number of workplace deaths would obviously be preferable to efficiently paying death benefits. Yet in the real world, a single claim for damages may in fact serve *both* goals concurrently. A legal case in which a plaintiff recovers damages for specific harm inflicted by a defendant not only serves the distributive goal with respect to those two parties, but may also serve the reductive goal by deterring this and other defendants from engaging in the same culpable behavior in the future.

There is no question that a successful legal claim for compensatory damages by Tuvalu would serve these dual functions. The losses sustained by Tuvalu culture and society would be at least partially paid for by the corporate and/or government defendants, and a clear signal would be sent to other potentially culpable industries and nations with respect to reducing their emissions. However, it is equally clear that regardless of the legal venue and strategy eventually chosen, Tuvalu faces very significant legal obstacles. The two venues most commonly cited (Christie, 2002) as being under current consideration, The United Nation's International Court of Justice and the United States federal court system, will present daunting threshold problems to Tuvalu—not the least of which is jurisdiction over both the subject matter of the lawsuit and jurisdiction over the defendant(s), whether private (corporate) or public (governmental). Nonetheless, a recent *Harvard Law Review* note states that “[r]ecent developments in American law raise the possibility that American courts may begin to hold corporations liable for human rights violations.” (Harvard, 2001) Specifically, this development has occurred as a result of a landmark 1980 decision by a federal appellate court which held that the Alien Tort Claims Act (ATCA), originally enacted in 1789 but largely dormant since then, gave U.S. courts jurisdiction over certain civil cases for torts committed against aliens that violate the “law of nations or a treaty of the United States.” (Harvard, 2001) Though the ATCA as currently written and interpreted provides remedies to a limited group of victims, it at least potentially opens the door to the U.S. federal court system in cases involving international human rights violations.

Should the significant threshold obstacles to filing a legal claim be successfully negotiated, what might the general contours of Tuvalu's civil case look like? Under American law, the case would likely be filed in tort (French for wrong), which is simply a violation of a legally recognized right that is not grounded in contract. More specifically, the case would be brought for negligence, which would require proof of four elements: 1) the defendant owed a legal duty to the plaintiff; 2) the defendant breached that legal duty by failing to exercise reasonable care; 3) the plaintiff suffered harm or injury; and 4) the harm or injury was proximately caused by the defendant breach of duty. Given the inherent scientific complexities, international political dimensions, and broad cultural nature of the harm in the Tuvalu case, each of the four elements would present significant challenges in the development of the plaintiff's legal theory and proof; each would likewise provide opportunities to the defense for rebuttal.

Recoverable damages in tort cases generally take two forms: *compensatory* damages, intended to compensate the plaintiff for all reasonably foreseeable damages caused by the defendant's negligence, and *punitive* damages, intended to punish the defendant beyond the extent of actual damages, but only if the defendant's actions were willful, wanton, or in reckless disregard of the plaintiff. Again, given the nature and complexities of the Tuvalu case, determining the most appropriate damages to be sought is not an easy matter. One case that might serve as an interesting model or template for Tuvalu's attorneys in this respect might be the negligence action brought against coal companies following the Buffalo Creek disaster in West Virginia in 1972, when 125 people lost their lives when a coal waste dam broke. Beyond the individual trauma, loss of life, physical injury, and property losses, absolutely central to the claim for damages in this lawsuit was the *collective* trauma to the residents of Buffalo Creek, along with the consequential *loss of community* caused by the permanent displacement of people from their lifelong homes. Though the Buffalo Creek lawsuit was settled and thus did not create legal precedent, the case is considered a historical landmark in American law with respect to its successful attempt to place a value on a people's culture and community—and one that is distinctly legal, and thus distinguishable from the political discussions surrounding reparations in instances of war, slavery, and the like. It is also a case that created a well-documented wealth of knowledge (see Stone, 1976; Erikson, 1976) with respect to the medical and psychological costs of collective trauma, and as such, has a number of parallels with Tuvalu and the case to be made there concerning the loss not only of property and ways of making a living, but of a culture and a way of life.

As Friedman (1984) has noted however, the law not only has an economic or instrumental face, but a moral face as well. It may just be possible that the real significance of a lawsuit that is brought to trial in a public court would not pivot on whether or not the suit is ultimately successful. To borrow a useful concept introduced by Gusfield in the 1960s, lawsuits have sometimes been used to wage a *symbolic crusade* against particular types of corporate or governmental wrongdoing. As Gusfield (1967) observed, the symbolic aspects of law do not necessarily depend on successful enforcement for their effect:

In analyzing law as symbolic we are oriented less to behavioral consequences as a means to fixed end; more to meaning as an act, a decision, a gesture important in itself.

An action...takes on symbolic import as it affects the designation of public norms. In their representational character, [legal] actions can be seen as ceremonial and ritual performances, designating the content of public morality... Law can thus be seen as symbolizing the public affirmation of social ideals and norms *as well as* a means of direct social control. This symbolic dimension is given in the statement, promulgation, or announcement of law unrelated to its function in influencing behavior through enforcement (Gusfield, 1967, p. 177 )

In short, the legacy of any lawsuit brought on behalf of the people of the disappearing nation of Tuvalu may hold the greatest significance *not* as a model for regulating the industrial policies of nations and companies, or even compensating victims of environmental degradation, but rather as a powerful symbolic declaration of internationally changing notions of acceptable environmental behavior.

## Conclusions

Simms (2001) concludes that the disastrous financial management of the poorer nations resulting in massive debts will pale in comparison to the effects of the poor management of the environment resulting in ecological debt. He argues that the concept of citizenship must be expanded to include notions of global citizenship as countries disappear and their people seek standing. How do we transition to thinking as global citizens and what moral and legal standards should developed nations then be held to? We have examined these concepts from both an ethical viewpoint and a legal viewpoint to determine what the responsibilities may be of developed nations to Tuvalu.

Ethically, we conclude that only egoism argues that developed nations have no moral responsibility to shoulder the burden caused by global warming. However, even egoism would argue that the tradeoff needs to be monitored and that changes should be made when the entity itself and its stakeholders begin to be substantially affected. This provides no recognition of those countries like Tuvalu and their citizens which constitute the first line nations who will be affected by rising seas. Thus, using egoism, the United States won't need to react until low-lying areas of the United States are threatened such as Florida. The problem with using egoism in this example is that the global warming will not quickly be turned around before substantial damage occurs within the United States and many other nations will have been severely affected.

Che (2001) raises many questions which we used to introduce this paper. What have we learned to address her questions from our examination of ethical and legal perspectives? First, we have learned that ethical perspectives suggest that there is a moral responsibility of those causing the global warming. Second, there are historical precedents for examining the issues of loss of community beyond the tangible loss of land and livelihood. We cited the example of Buffalo Creek, but other examples exist such as Bikini Atoll in the Marshall Islands. Finally, while the likelihood of a successful lawsuit is remote, this action may force the issue onto the moral radar of ethical people who have not considered their complicity in these events.

## References

- BBC News, 2000. "High Tides threaten Tuvalu", 2/18/00,  
([http://news.bbc.co.uk/1/hi/english/world/asia-pacific/newsid\\_648000/](http://news.bbc.co.uk/1/hi/english/world/asia-pacific/newsid_648000/))
- Beauchamp, Tom L. and Norman E. Bowie. Ethical Theory and Business, 6<sup>th</sup> Ed., 2001, Upper Saddle River, NJ: Prentice-Hall.
- Boyd, Alan, 2001 Pacific Beat: Beware the rising tide. Asia Times Online, 7/26/01.  
(<http://www.atimes.com/oceania/CG26Ah05.html>)
- Central Intelligence Agency, 2002, World Factbook 2001 Online  
(<http://www.odci.gov/cia/publications/factbook/>)
- Che, Eun Jung Cahill, 2001. Tuvalu: first casualty of climate change. The Japan Times Online, 8/26/01.
- Christie, Michael. 2002. "Lawsuits may be next weapon in climate change fight", Environmental News Network, 3/6/02, ([http://www.enn.com/news/wire-stories/2002/03/03062002/reu\\_46587.asp](http://www.enn.com/news/wire-stories/2002/03/03062002/reu_46587.asp))
- DeGeorge, Richard. 1999. Business Ethics, 5<sup>th</sup> Ed. Upper Saddle River, NJ: Prentice Hall.
- Donaldson, Thomas and Patricia Werhane. Ethical Issues in Business: A Philosophical Approach, 6<sup>th</sup> Ed., 1999, Upper Saddle River, NJ: Prentice-Hall.
- EPA. 2001. Global Warming Program, Individual Emissions, updated October 3, 2001,  
<http://www.epa.gov/globalwarming/emissions/individual/index.html>
- Erikson, Kai, 1976. Everything in Its Path: Destruction of Community in the Buffalo Creek Flood. (New York: Simon and Schuster).
- Friedman, Lawrence M. 1984. "Two Faces of Law", Wisconsin Law Review (13: Jan/Feb).
- Gusfield, Joseph, 1967. Moral Passage: The symbolic process in public designations of deviance, Social Problems, 15:177.
- Hartman, Laura P. Perspectives in Business Ethics, 2<sup>nd</sup> Ed., 2002, New York: McGraw-Hill/Irwin.
- Harvard Law Review, 2001, Note, "Corporate Liability for Violations of Human Rights Law", 114: 2025.
- Hinrichsen, Don. "The Oceans are Coming Ashore," WorldWatch, November/December, 2000.

Intergovernmental Panel on Climate Change (IPCC), 2001. "Climate Change 2001: The Scientific Basis: Summary for Policymakers," <http://www.ipcc.ch/pub/spm22-01.pdf>

Johnson, Patrice D. 2000. Name that domain. Money, 29:7, 28.

Karl, Thomas R. and Kevin E. Trenberth. "The Human Impact on Climate," Scientific American, December, 1999, 100-115.

Kirby, Alex. 2001. "Pacific islanders flee rising seas", BBC News, 10/9/01, ([http://news.bbc.co.uk/hi/english/sci/tech/newsid\\_1581000/1581457.stm](http://news.bbc.co.uk/hi/english/sci/tech/newsid_1581000/1581457.stm))

Microsoft® Encarta® Online Encyclopedia, 2001, "Tuvalu," (<http://encarta.msn.com>)

NPR, 2001. "Tuvalu" All Things Considered Report on 11/15/01. ([http://search1.npr.org/opt/collections/torched/atc/data\\_atc/seg\\_133294.htm](http://search1.npr.org/opt/collections/torched/atc/data_atc/seg_133294.htm))

Resture, Jane, 2002. Jane's Tuvalu Home Page ([http://www.janeresture.com/tuvalu2/tuvalu\\_home\\_page.htm](http://www.janeresture.com/tuvalu2/tuvalu_home_page.htm))

Simms, Andrew, 2001. Farewell Tuvalu. Guardian Unlimited, 10/29/01. (<http://www.guardian.co.uk/comment/story/o,3604,582445,00.html>)

Solomon, Robert C. (1992) "Corporate Roles, Personal Virtues: An Aristotelean Approach to Business Ethics," in T. Donaldson & P. Werhane, Eds., Ethical Issues in Business: A Philosophical Approach, 6<sup>th</sup> Ed., pp. 81-93, 1999, Upper Saddle River, NJ: Prentice-Hall.

Steidlmeier, Paul. 1990. Hazardous wastes: Ethical dilemmas of ends and means, heroes and villains. In W. Michael Hoffman, Robert Frederick, and Edward S. Petry, Jr., The Corporation, Ethics and the Environment. New York: Quorum Books.

Stone, Christopher, 1975. Where the Law Ends: The Social Control of Corporations. (New York: Harper & Row).

Stone, Gerald M. 1976. The Buffalo Creek Disaster. (New York: Random House).

UniSci, "Global Warming Will Continue For The Next Century," February 20, 2002, <http://unisci.com/stories/20021/0220021.htm>

Velasquez, Manuel G. Business Ethics: Concepts and Cases, 4<sup>th</sup> Ed., 1998, Upper Saddle River, NJ: Prentice Hall.