

Session No. 20

Course Title: Coastal Hazards Management

Session Title: Ethical Dimensions of Coastal Hazards Management

Author: Professor Timothy Beatley, University of Virginia

Time: 50 minutes

Objectives:

- 20.1 Define what “ethics” are, and their essential role in influencing policy and planning.
 - 20.2 Identify the main ethical quandaries or dilemmas likely to be faced by professionals involved coastal hazards management.
 - 20.3 Lay out an ethical framework for better understanding and organizing different ethical perspectives on coastal hazards management.
 - 20.4 Identify and describe the main ethical principles and concepts that can be used to guide coastal management actions and decision making.
 - 20.5 Present and discuss a series of ethical examples and scenarios that demonstrate (and challenge students to think about) the ethics and ethical dimensions of coastal hazards management.
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Scope:

This is the first of two sessions dealing with ethical aspects of coastal hazards management. In the first session, the variety of ethical aspects, dimensions and quandaries are identified, key ethical questions outlined, and an initial ethical framework is sketched out for students that will be useful in working through these ethical dimensions. Session 21, that follows, will in more detail review the variety of often conflicting and competing values that come into play, and will further extend and elaborate on the ethical dimensions of mitigation policies and actions.

Readings:

Instructor and Student Readings:

Godschalk, David R., et al. 1999. *Natural Hazard Mitigation: Recasting Disaster Policy and Planning*. Washington, D.C.: Island Press, pp. 479-524: "Ethical Guidelines for Hazard Mitigation."

Additional Instructor Readings:

Beatley, Timothy. 1989. "Towards a Moral Philosophy of Natural Disaster Mitigation." *International Journal of Mass Emergencies and Disasters* 7(1): 5-32.

Beatley, Timothy. 1994. *Ethical Land Use: Principles for Policy and Planning*. Johns Hopkins University Press.

PowerPoint Slides:

PowerPoint 20.1 What Are Ethics?

PowerPoint 20.2 What Are Values?

PowerPoint 20.3 Ethical Quandaries in Coastal Hazards Management

PowerPoint 20.4 Ethical Typology

PowerPoint 20.5 Teleological Ethics

PowerPoint 20.6 Ethical Assumptions of a Utilitarian/Economic View of the Environment

PowerPoint 20.7 Deontological Perspective: Questions to Consider

PowerPoint 20.8 Non-Anthropocentric Ethical Perspectives

Handouts:

Handout 20.1: Ethical Case Studies for Discussion

General Requirements:

In this session, it is envisioned that the instructor will first introduce ethics and values as an important element in any discussion of coastal hazards, and that policy responses to coastal hazards have implicit value assumptions. The decision even to adopt (or not) a coastal hazards policy represents a value choice and ethical position. The instructor will present, through lecture and PowerPoint slides, a framework for understanding and categorizing different ethical theories and positions.

This subject especially lends itself to discussion and interaction between students and the instructor. Discussion would be significantly enhanced through the consideration of actual coastal hazards conflicts and dilemmas. A series of ethical examples are presented here that the instructor can use at either the beginning or the end of the session to provoke and stimulate discussion. These ethical dilemmas appear in Handout 20.1, which is available in Appendix A for copying and distribution to the students.

Objective 20.1: Define what “ethics” are, and their essential role in influencing policy and planning.

Requirements:

The content should be presented as a lecture, supported by PowerPoint slides. Class discussion is to be encouraged.

The following PowerPoint slides will be used during this Objective:

PowerPoint 20.1 What Are Ethics?
PowerPoint 20.2 What Are Values?

Remarks:

What are values and ethics?

[PowerPoint 20.1 What Are Ethics]

- Here we discuss some ethical preliminaries:
 - **Ethics or moral philosophy** is that branch of philosophy that deals with good and bad, right and wrong. Ethics or ethical standards represent a principle or a set of moral principles for guiding our actions, our behavior, our choices.

- Ethics can be viewed as the **deliberative process** by which individuals and society reflect upon and make **judgments and choices** about the use and **allocation of resources**.
- Ethical choices are **principled choices**, in the sense that they are guided by moral standards, principles, guidelines.

[PowerPoint 20.2 What Are Values?]

- **Ethics are different from values** in the sense that the latter are static representations of what people think or believe at a particular point in time. Assessing and understanding values is a useful process in making ethical judgments, but ethics must be viewed as a more deliberative and dynamic process by which individuals and society actively seek to make decisions that are just and fair.
- **A distinction between fact and value** is an important one in the field of ethics, and in the practice of making ethical judgments about *coastal hazards*.
 - A factual belief that, say, investing in beach re-nourishment will solve a community's beach erosion problem, does not automatically demonstrate that this is the ethically correct or right thing to do.
 - An ethic cannot be derived from a factual belief or circumstance, though factual relationships are certainly relevant considerations in making moral or ethical (and certainly policy) judgments.
 - We may conclude that every individual has the right to a minimum level of safety from hurricanes and coastal storms, an ethical position, and yet still decide against adopting a specific proposal (e.g. an evacuation plan) if we believe the proposed action or policy or program will not be effective (a factual proposition).
 - This can also be described as a distinction between ends and means.

Objective 20.2: Identify the main ethical quandaries or dilemmas likely to be faced by professionals involved coastal hazards management.

Requirements:

The content should be presented as a lecture, supported by PowerPoint slide. Class discussion is to be encouraged.

The following PowerPoint slide will be used during this Objective:

PowerPoint 20.3 Ethical Quandaries in Coastal Hazards Management

Remarks:

- A main initial point is that the ethical quandaries faced by planners, policymakers and elected officials around the issues of coastal hazard management and mitigation are numerous and often difficult.
- There are many specific ethical questions, issues and quandaries that emerge, and the following is just an initial list of some of the more important of these:

[PowerPoint 20.3 Ethical Quandaries in Coastal Hazards Management]

- When the **interests of nature and natural environment come into conflict with humans**, which set of interests should receive priority or prevail?
- **Whose interests ought to be taken into account** in considering the ethics of a coastal hazards decision or policy?
- **What is a fair and just process** for taking into account the interests of these groups and individuals in the development and implementation of coastal hazard mitigation programs?
- **What is a fair or just distribution of the costs and benefits** of coastal hazards mitigation?
- **What ethical principles and standards or concepts ought to guide** coastal hazards decisions or policy?
- What is an **acceptable risk** along the coast and when should society's judgments of what is acceptable supercede or trump individual judgments? (raising questions of **paternalism**).

Objective 20.2 Lay out an ethical framework for better understanding and organizing different ethical perspectives on coastal hazards management.

Requirements:

The content should be presented as a lecture, supported by PowerPoint slide. Class discussion is to be encouraged.

The following PowerPoint slide will be used during this Objective:

PowerPoint 20.4 Ethical Typology

Remarks:

Categorizing Ethical Positions

- There are many different ways of categorizing or organizing ethical positions and theories. In this objective an initial attempt will be made to sort through these different theories and principles and to offer a **framework for understanding and organizing** them.
- Two **main distinctions** will be used:
 - **Teleological—Deontological** continuum, and
 - **Anthropocentric-Non-Anthropocentric** continuum.

[PowerPoint 20.4 Ethical Typology]

- Students should be clear that this is an imperfect sorting-out and that there are undoubtedly many other framework and ways that this could be done. **A two-dimensional diagram** is presented (modified from Beatley 1994) as a way of organizing thinking and categorizing different ethical positions.

Teleological Ethics

- A broad category of ethical theory, teleological ethics would argue that coastal hazards policy and decisions should be made by **judging the likely consequences** of these actions and **reviewing the comparative results** of the different policy options available.
 - It is **consequentialist** and **outcomes-oriented** by nature, and many contemporary policy tools and planning analytics as applied to coastal hazards reflect this teleological thinking.
- A nice succinct **definition** put forth by the late philosopher **William Frankena**:

“A teleological theory says that the basic or ultimate criterion or standard of what is morally right, wrong, obligatory, etc., is the non-moral value that is brought into being. The final appeal, directly or indirectly, must be to the comparative amount of good over evil.”

Deontological Ethics

- The deontologists assert, **on the other hand**, that:
 - “there are other considerations that may make an action or rule right or obligatory besides the goodness or badness of its consequences—certain features of the act itself other than the value it brings into existence, for example, the fact that it keeps a promise, is just, or is commanded by God or by the State”* (Frankena).
- A deontological approach to coastal hazards would suggest the need to **look to other moral concepts or duties or principles other than utilitarian calculations**.
 - Do we owe all individuals a minimum level of safety from natural disaster events, for instance, regardless of whether the protective or mitigative actions are expensive and perhaps not cost-effective in the typical utilitarian sense?
 - We might undertake a coastal hazards management or mitigative action for many other reasons (than utility maximizing), including that:
 - we have duties to ensure the health and safety of citizens (including children);
 - we have duties to protect and be good stewards of the coastal environment for future generations, and
 - we may have duties to prevent the imposition of harms (e.g. one coastal property owner or actor taking an action such as building a seawall) that negatively affect others and the broader coastal public.

Coastal Hazards Example:

- Coastal managers commonly face conflicts between deontological, or duty-based ethics, and teleological, consequence-oriented ethics. Use of decision tools such as **cost-benefit analysis**, highly **teleological** in its ethical focus, is common in making decisions about whether a mitigation action can or should be undertaken. If the benefits of, say, elevating a building or moving a structure out of the coastal zone don't exceed the costs, the action is not justifiable.

- However, there are many coastal hazard actions and programs that might be justified on other, **deontological** grounds. Even where the costs of coastal relocation may exceed the benefits we may still recognize it as the **morally correct** thing to do, because we believe that all individuals have a *minimum right of safety*, that perhaps *promises* have been made that relocation would take place, or that there is some other important *duty or value* that supports such action.

Objective 20.4 Identify and describe the main ethical principles and concepts that can be used to guide coastal management actions and decision making.

Requirements:

The content of this objective will be explored largely through class discussion.

The following PowerPoint slides will be used during this Objective:

PowerPoint 20.5	Teleological Ethics
PowerPoint 20.6	Ethical Assumptions of a Utilitarian/Economic View of the Environment
PowerPoint 20.7	Deontological Perspective: Questions to Consider
PowerPoint 20.8	Non-Anthropocentric Ethical Perspectives

Remarks:

Here the instructor and students are able to explore in more detail the many different ethical positions and principles that fall within the quadrants of the diagram in *PowerPoint 20.4 Ethical Typology*. It is recommended that the instructor begin with teleological value approaches to coastal hazards, moving then to deontological and finally to the consideration (more briefly in that this is a large topic and body of writing and thinking) the non-anthropocentric perspectives.

1. More on Teleological/Utilitarian/Perspectives:

Students should be asked to comment on and encouraged to discuss the ethical assumptions of these teleological theories in the context of coastal hazard management.

- Arguably this is the **dominant ethical paradigm**.
- Discuss the ways this perspective has been written into coastal hazard mitigation policy. Consider for instance:

- Cost-Benefit Analysis (CBA) is required for all mitigation projects that are funded by the Hazard Mitigation Grant Program (HMGP)
- CBA is required by law for funding hurricane protection works, etc.

[PowerPoint 20.5 Teleological Ethics]

- Discuss these issues in the context of coastal hazard mitigation policy:
 - utilitarianism
 - cost-benefit
 - market failure
 - contingent valuation
 - conservation v. preservation

[PowerPoint 20.6 Ethical Assumptions of a Utilitarian/Economic View of the Environment]

- Discuss some of the ethical assumptions of utilitarian/economic view of the environment:
 - maximization of social welfare/the ultimate moral goal
 - environmental goods and services can be “priced”; monetary values can be placed on all things;
 - value determined through personal preferences and casting of dollar votes;
 - equal valuation of private and social decisions
 - comparability of environmental and non-environmental goods using dollar metric;
 - present given moral priority (e.g. practice of discounting)

2. More on Various Deontological Perspectives and Principles:

Environmental rights

- A sharp contrast to a utilitarian approach to coastal hazards, a rights-based approach would suggest that **there are particular rights and entitlements to which all people are owed**, irrespective of their cost or inconvenience or difficulty in securing them.

[PowerPoint 20.7 Deontological Perspective: Questions to Consider]

- Pose the question:

Is there a right to a minimum level of safety?

- A number of contemporary documents, such as the United Nations *Declaration on Human Rights*, imply this right does exist.

- Pose the question:

What kind of rights to coastal hazards management or mitigation might there be?

- The right to be informed of an oncoming hurricane or storm or other dangerous meteorological event;
- The right to enjoy access to certain collective goods and resources, many of which are along the coast, such as:
 - the right to enjoy sandy beaches,
 - the right of access to coastal river systems, etc.
- The right to minimum protection through adequate building codes and construction standards;
- The right to accurate information regarding coastal hazards, such as accurate flood maps, storm surge inundation maps, clearly delineated coastal erosion areas, etc.

Some examples:

- public trust doctrine/customary use doctrine
- state constitutional provisions for livable environment
- earth charter

- Pose the question:

Who is culpable for a failure to prevent harm?

- Pose the question:

Is there an obligation to future generations? Should we be concerned with intergenerational equity in coastal hazards management?

Some examples/elaborations to discuss:

- keeping options open; preventing irreversible action
- sustainability; sustainable development
- “enough and as good” for future generations
- Rawls’ just savings principle
- preventing ecological catastrophe

3. Non-Anthropocentric Ethical Perspectives

- Review ethical theories and approaches that question the usual human-centered ethical framework.

Might the coast, and its ecology and natural and biophysical processes, have inherent worth, or a moral value in and of themselves, irrespective of their value to human beings?

- This is the main question posed and examined here. There are a number of more specific positions that attempt to answer this question in the positive. What follows is a **quick overview of these possible positions**.

[PowerPoint 20.8 Non-Anthropocentric Ethical Perspectives]

- Duties to animals and sentient life; "**ethical sentientism**"
 - Singer's expanded utilitarianism (animal liberation)
 - Regan's rights-based view
 - Van de Veer's two-factor egalitarianism
- Duties to **preserve species and biodiversity**
 - Ehrenfeld's Noah Principle
 - E.O. Wilson, Ehrlich, Lovejoy, etc.
- **Biocentrism**; “life”-based moral frameworks
 - Paul Taylor’s Biocentric Outlook: Four Core Beliefs:
 - a) The belief that humans are members of the Earth’s Community of Life in the same sense and on the same terms in which other living things are members of the Community.
 - b) The belief that the human species, along with all other species, are integral elements in a system of interdependence such that the survival of each living thing,

as well as its chances of faring well or poorly, is determined not only by the physical conditions of its environment but also by its relation to other living things.

- c) The belief that all organisms are teleological centers of life in the sense that each is a unique individual pursuing its own good in its own way.
 - d) The belief that humans are not inherently superior to other living things.
- o **Deep ecology** (e.g. Arne Naess, Devall, Sessions, Fox's "transpersonal ecology"); contrasts with "shallow ecology"
 - "If we experience the world as an extension of ourselves, if we have a broader and deeper identification, then we feel hurt when other beings, including nonhuman beings are hurt" (Devall)
 - "In the concept of the Ecological Self, human interests and natural interests become fused and there is no need to appeal to the traditional discourse of rights and values. The integrity of the biosphere is seen as the integrity of our own persons; the rights of the natural world are implied in our right to be human and humane" (Manes)

Objective 20.5 Present and discuss a series of ethical examples and scenarios that demonstrate (and challenge students to think about) the ethics and ethical dimensions of coastal hazards management.

Requirements:

The content of this objective will be explored largely through class discussion. Handout 20.1 will provide hypothetical scenarios on which to base class discussion. The Handout can be found in Appendix A, and is available for copying and distribution to the students.

Remarks:

Case 1: Coastal Watershed Conservation-Development

Consider the case of an inland coastal county (non-beach or oceanfront community) experiencing substantial watershed degradation over a considerable period of time: farmlands and forests have been gradually giving way to subdivisions and shopping centers, parking lots and major roads. Over time

flooding in the county has increased dramatically and several recent hurricane events have demonstrated convincingly just how much degradation the natural hydrology of the community has endured. To check these trends, recent proposals have been to significantly expand coastal watershed protections. The county has proposed a new watershed ordinance that would impose new restrictions on development outside designated growth centers: new limits on impervious surfaces (no more than 10% of a site), limits on the amount of site and vegetative disturbance (no more than 30% of a site), no building in the 100-year floodplain, and expanded wetland buffer requirements as well. The proposed ordinance is controversial among landowners and developers in the county, but supported strongly by several local environmental and smart growth advocacy groups...

What are some of the key ethical questions to consider here?

Case 2: Barrier Island Development

Growth and development along our nation's coastlines is occurring at a rapid pace, placing more and more people and property at risk to coastal storms, and putting more stresses on sensitive coastal ecosystems. Growth along the fragile string of barrier islands, extending from Maine to Texas, has been particularly intense. South Carolina, in an effort to better control and manage this growth has enacted a new law called the Beachfront Management Act, which places new restrictions of what and where construction can take place. Supporters of the Act believe this is a positive move, needed to preserve the public beach from encroachment, and to minimize the destructiveness of hurricanes and coastal storms. The restrictions are modest, to be sure: the construction of new homes is now prohibited seaward of a new setback line, which extends twenty feet landward of the crest of the dune. Under the law, new homes or other major construction is not permitted within this narrow shoreline zone. Many coastal landowners have been unhappy with these new restrictions and believe they are an unfair and illegal infringement on their private property rights. One coastal property owner, David Sacul, was particularly upset upon learning that he would not be able to build permanent structures on the two beachfront lots he owns in the pricey coastal subdivision of Sea Breeze Ranch, on Balmy Isle. Sacul actually acquired the lots before the law was even enacted and though this property had been completely underwater at several points in the recent past, he was looking to developing the land. Together the lots had a fair market value of about \$1 million before the Beachfront Management Act came into force, and Sacul believes that the result of the new law has been to illegally "take" his property without fair compensation. Sacul decides to take action and sues the State of South Carolina. The case eventually makes its way to that state's supreme court. The court rules in favor of the Act, holding that the restrictions on building are intended to prevent a serious public harm and are a legitimate limitation on the use of Sacul's property. Sacul is upset and says he plans to appeal the case to the U.S. Supreme Court.

What are some of the key ethical questions to consider here?

Case 3: Evacuation Capacity Case

Assume you are the mayor of a town located on a coastal barrier island. Like most barriers, the town is subject to hurricanes and other coastal storms on a regular basis. Over the last five years, the town has been evacuated four times due to hurricanes that have made landfall nearby. The evacuation route follows the single two-lane bridge connecting the island to the mainland. The town is currently close to build-out, with only 40 acres of developable land remaining. The town relies heavily on tourism for its livelihood; few other opportunities are available on the tiny island. During the peak summer months, visitors bring in just barely enough income to support the permanent residents through the rest of the year. A developer has recently proposed a project that would accommodate 4,000 people. The additional sales and occupancy taxes would be very welcome in the community, and the townspeople are eager to expand their property tax base with this high-end development. However, the density of the proposed development would exceed the capacity of the roads and the bridge to evacuate all the newcomers in the event of a major hurricane.

What is your obligation as mayor regarding the development proposal? What are some of the ethical considerations to be made in coming to a decision?

Appendix A: Handouts

Handout 20.1: Ethical Case Studies for Discussion

Case 1: Coastal Watershed Conservation-Development

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