

# Overview of Environmental Policy, Law, and Regulation

# How does the quality of our surroundings affect...

- our physical health?
- the health of other species and the ecosystem itself?
- our economic well-being?
- the aesthetic, psychological or spiritual benefits we derive from our surroundings?
- future generations?

# Common Environmental Values

- no adverse affect on our personal health
- minimal or no affect on public health
- worthwhile to protect species and natural environments
- minimize the constraints placed on individual liberties
- consider both the costs and benefits of environmental protection efforts

# Driving Forces are Largely Political

- environmental protection efforts are rarely voluntary due to the short-term costs
- legislation results from a political compromise -- public outcry vs. response of affected parties
- process is subject to all of the idiosyncrasies of political decision-making
- extensive set of checks and balances

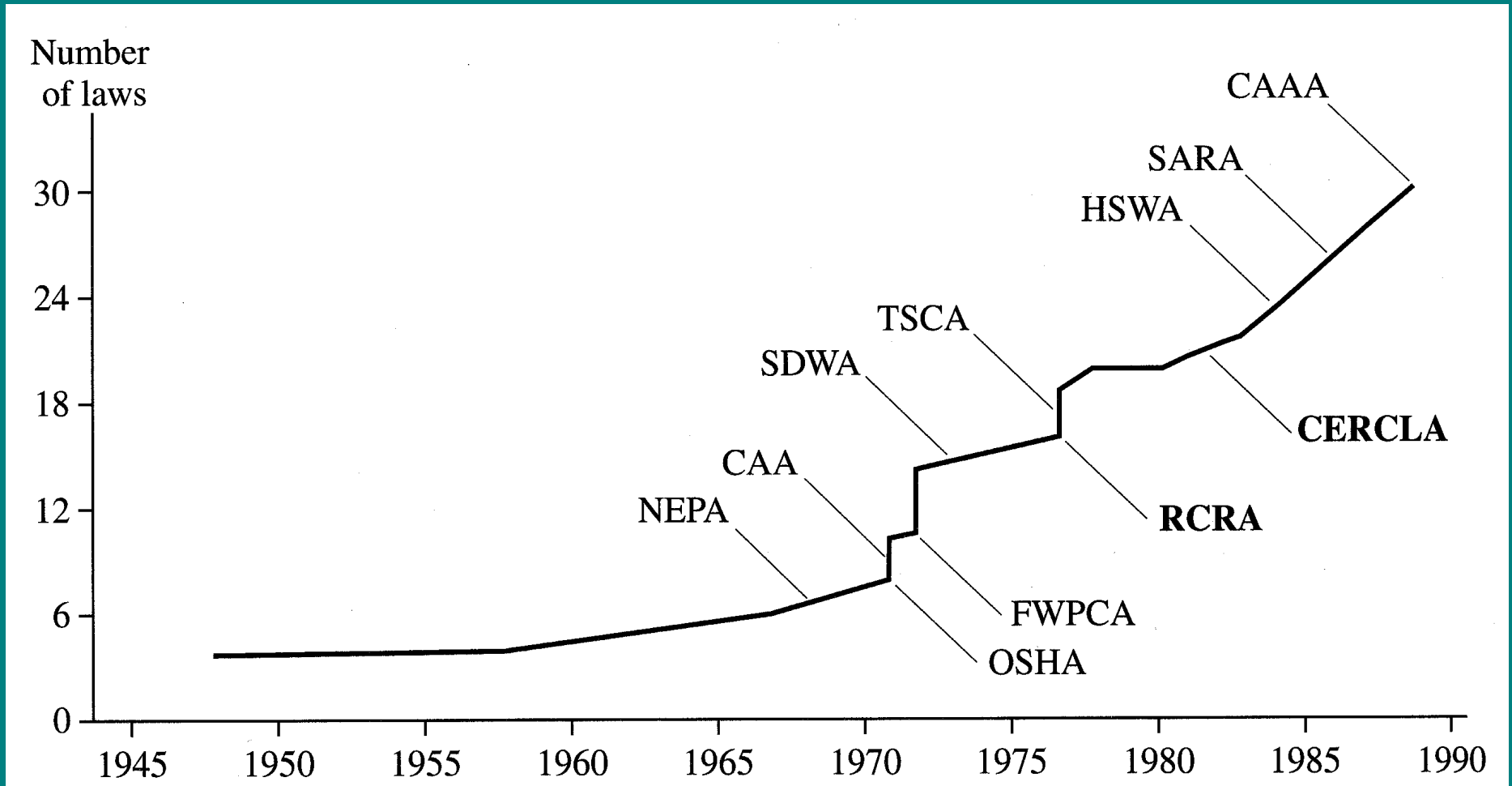
# Institutional Mechanisms for Environmental Protection

<b>Mechanism</b>	<b>Advantages</b>	<b>Disadvantages</b>
<i>Market Forces</i>	Rapid	Hard to assign costs Poor access to information
<i>Common Law Liability</i>	Compensation Incentive to limit liability	Difficult to prove causation Expensive
<i>Government Regulation</i>	Uniformity Can address non-economic factors	Idiosyncratic Slow Inflexible
<i>Insurance</i>	Compensate efficiently	May reduce incentives to prevent damage

# Historical Stages of U.S. Environmental Protection Efforts

- pre 1945: Common law/conservation era
- 1945 - 1962: Public works era
- 1962 - 1972: Environmental movement
- 1972 - 1980: Federal regulatory era
- 1980 - 1990: Refining regulatory strategies
- 1990 - ?: Regulatory recoil
- post ?: unknown

# Growth of Environmental Laws



# Looking Ahead: Outcomes-based Environmental Protection

- Previous efforts have largely utilized “command and control” approach
- Current challenge is to improve efficiency, effectiveness and flexibility of protection efforts
- New approach is to define the outcome and compliance indicators
- Allows the regulated community to find their best solutions



# Framework for Protecting Human Health: the Risk Assessment/ Risk Management Paradigm

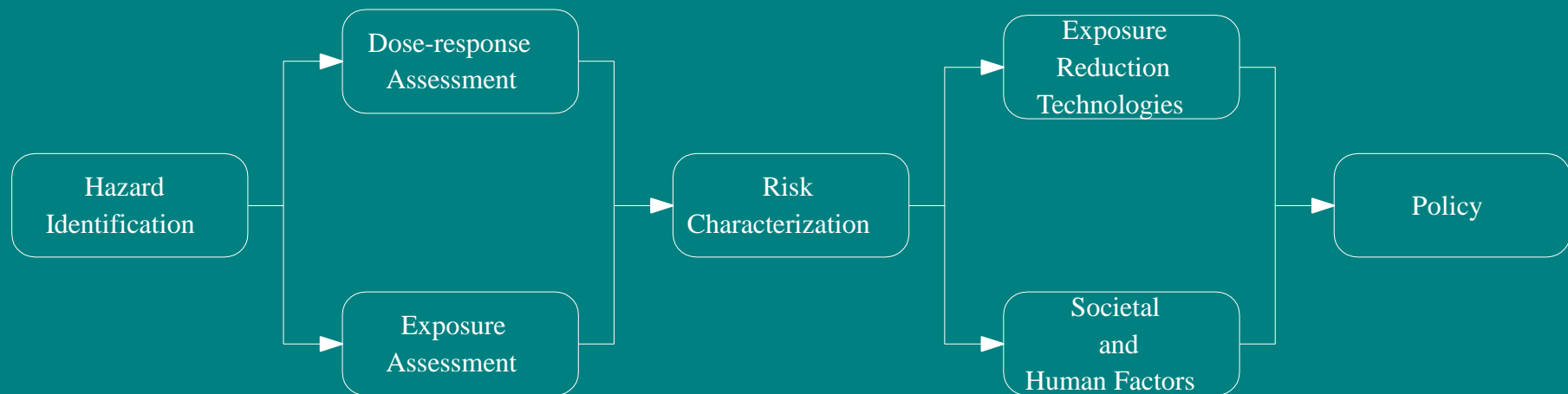
## *Assumptions:*

- actual risk = exposure  $\times$  toxicity
- risk reduction = exposure reduction
- perceived risk  $\neq$  actual risk
- risk management must address both perceived and actual risk

# Risk Assessment/Risk Management Paradigm

## Risk Assessment

## Risk Management



# Environmental Protection Programs in the U.S.

- Programs are largely media and source specific -- separate legislation, regulations, regulatory groups and enforcement mechanisms
- Different approaches in different programs reflect political trends at the time of development
- Outcomes-based approach still evolving

# Hierarchy of Law

- U.S. Constitution
- Treaties
- Federal statutes
- State statutes
- Local statutes
- Federal regulations
- State regulations
- Local regulations
- Case law

# Environmental Law & Regulation

- Federal statutes are foundation for all major environmental programs
  - *bill* passed by both houses of Congress and signed by President becomes law, termed an *act, law or statute*.
  - Example: Resource, Conservation and Recovery Act (RCRA) passed in 1976 designated PL 94-580.
  - Laws are regularly *codified*, or published in organized manner, along with any subsequent modifications or *amendments*
  - Example: RCRA is referenced as 42 USC 6901 et seq.

# Environmental Law & Regulation

- Federal *regulations* are specific rules developed by executive branch agency to implement the law.
  - Regulations get very specific, whereas laws are usually general
  - *Promulgation* of a regulation is a complex, multi-step process subject to specific legal requirements
  - *Proposed and Final Rules* published daily in *Federal Register*.
  - Regulations codified in *Code of Federal Regulations*.
  - Example: RCRA regulations found in Subchapter I, Parts 239-299 (e.g. 40 CFR 239)

# Environmental Law & Regulation

- Role of state statutes and regulations varies significantly from state to state and between areas of environmental law.
  - States commonly have, and are sometimes required to have, parallel statutes and regulations that are at least as stringent as the federal requirements
- Michigan consolidated most environmental and natural resources law under the Michigan Natural Resources and Environmental Protection Act, PA 451 of 1994

# Environmental Law & Regulation

- Example: Waste management is Chapter 3, hazardous waste management is Part 111 (MCL §324.111)
- Regulations developed by executive branch agency
- Example: Hazardous waste management rules start in R 299.9201



# Primary Environmental Laws

- 1938 Federal Food, Drug, and Cosmetic Act
- 1947 Federal Insecticide, Fungicide, and Rodenticide Act
- 1948 Federal Water Pollution Control Act (also known as the Clean Water Act)
- 1955 Clean Air Act
- 1965 Shoreline Erosion Protection Act
- 1965 Solid Waste Disposal Act
- 1970 National Environmental Policy Act

# Primary Environmental Laws

- 1970 Pollution Prevention Packaging Act
- 1970 Resource Recovery Act
- 1971 Lead-Based Paint Poisoning Prevention Act
- 1972 Coastal Zone Management Act
- 1972 Marine Protection, Research, and Sanctuaries Act
- 1972 Ocean Dumping Act
- 1973 Endangered Species Act
- 1974 Safe Drinking Water Act

# Primary Environmental Laws

- 1974 Shoreline Erosion Control Demonstration Act
- 1975 Hazardous Materials Transportation Act
- 1976 Resource Conservation and Recovery Act
- 1976 Toxic Substances Control Act
- 1977 Surface Mining Control and Reclamation Act
- 1978 Uranium Mill-Tailings Radiation Control Act

# Primary Environmental Laws

- 1980 Asbestos School Hazard Detection and Control Act
- 1980 Comprehensive Environmental Response, Compensation, and Liability Act
- 1982 Nuclear Waste Policy Act
- 1984 Asbestos School Hazard Abatement Act
- 1986 Asbestos Hazard Emergency Response Act
- 1986 Emergency Planning and Community Right to Know Act

# Primary Environmental Laws

- 1988 Indoor Radon Abatement Act
- 1988 Lead Contamination Control Act
- 1988 Medical Waste Tracking Act
- 1988 Ocean Dumping Ban Act
- 1988 Shore Protection Act
- 1990 National Environmental Education Act

# Enforcement

- Compliance monitoring
- Civil Enforcement Actions
  - Civil Administrative Actions
    - informal -- communication about problem
    - formal -- notice or administrative order (may have penalties)
  - Civil Judicial Actions
- Criminal Enforcement Actions
- Emergency Response/Emergency Orders
- Compliance Incentives
- Compliance Assistance

# Enforcement Outcomes

- Settlements -- agreement
- Civil Penalties -- fines
- Injunctive Relief -- tasks to be carried out
- Supplemental Environmental Projects

# Environmental Code of Ethics

- Use knowledge and skill for the enhancement and protection of the environment
- Hold paramount the health, safety and welfare of the environment
- Perform services only in areas of personal expertise
- Be honest and impartial in serving the public, your employers, your clients and the environment
- Issue public statements only in an objective and truthful manner