

Course

**Global Environmental  
Management**

by Elena Gladun,  
Tyumen State  
University

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# Lecture 1

## **Introduction to Global Environmental Management**

by Elena Gladun,  
Tyumen State  
University

# What is environment?

## *Variety of definitions:*

- Something that environs
- Surroundings; surrounding objects, region or circumstances
- Man's environment which gives him physical sustenance and affords him the opportunity for intellectual, spiritual, moral and social growth
- Where we all live
- The whole complex of climatic, biotic factors that act upon an organism or an ecological community and ultimately determine its form or survival; the aggregate of social or cultural conditions that influence the life of an individual or a community

# What is environment?

## *Definition 1:*

The origin of the word "environment" is French, coming from "environner" meaning "*to encircle*". Since the beginning of the 1960's, new words have emerged in many languages to express the concept of the environment: "Umwelt" (German), "milieu" (Dutch), "medio ambiente" (Spanish), "meio ambiente" (Portuguese), "okruzhayuschaya sreda" (Russian), "Al'biah" (Arabic) and "kankyo" (Japanese).

# What is environment?

## *Definition 2:*

The region, surroundings or circumstances in which anything exists; everything external to the organism. The environment of the human being includes the abiotic factors of land, water, atmosphere, climate, sound, odours and tastes; the biotic factors of animals, plants, bacteria and viruses; and the social factor of aesthetics.

*(A. Gilpin, Dictionary of Environmental Terms, 1976)*

# What is environment?

## *Definition 3:*

Nature, which includes the earth's evolutionary and ecological heritage, is the object of religious, aesthetic, and cultural contemplation and appreciation; it is also the subject of the science of natural history. The environment, in contrast, is a concept of recent origin. It is the subject of economic and biological sciences that attempt to predict, control, and "price" flows of materials and resources (including genetic materials and biospheric systems) in order to maximize the long-run benefits nature offers man.

*(M.Sagoff, "Population and the Environment", 1993)*

# Natural Environment

Complete ecological units that function as natural systems without massive human intervention, including all vegetation, microorganisms, soil, rocks, atmosphere and natural phenomena that occur within their boundaries

Universal natural resources and physical phenomena that lack clear-cut boundaries, such as air, water, and climate, as well as energy, radiation, electric charge, and magnetism, not originating from human activity



# Natural environment VS. Human environment

The areas and components that are strongly influenced  
by humans

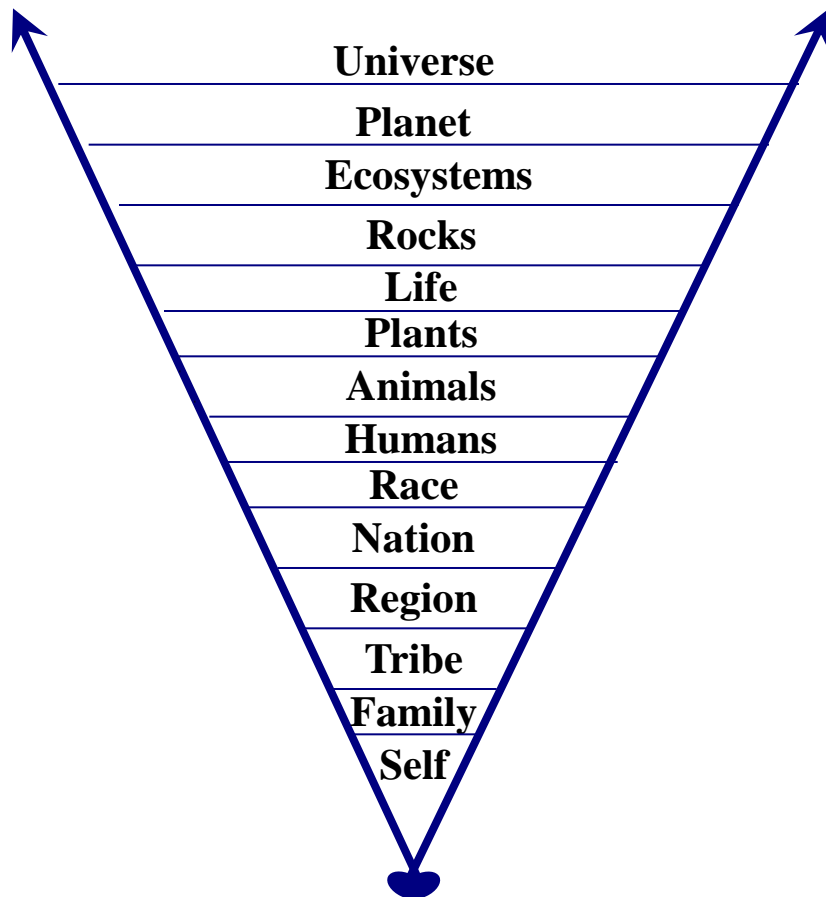
# What is environmentalism?

## *Definition :*

One of the most recent approaches that encloses and enriches affective bond between people and the environments that they create, inhabit, manipulate and conserve, visit, or even, imagine.

*(The Dictionary of Human Geography, 1986)*

# How do people treat their environment?



**The evolution of  
environmentalism**

# What is ecology?

## *Definition :*

The science of the intricate web of relationships between living organisms and their living and nonliving surroundings.

*(United States Council on Environmental Quality, 1970)*

# People's relationship with nature

Community

```
graph TD; Community[Community] --> Utilization[Utilization of resources]; Community --> Pollution[Pollution]; Community --> Protection[Protection]; Community --> Security[Environmental security]; NaturalEnvironment[Natural environment];
```

Utilization of resources

Pollution

Natural  
environment

Protection

Environmental security

# People's relationship with nature

## **Community**

is a group of people bound together primarily by a common recognition of, and preference for, the existence and goals of the community, and, consequently, by the desire for the community to continue

## **Natural resource**

is a portion of the Earth that contributes to the continued existence of a community

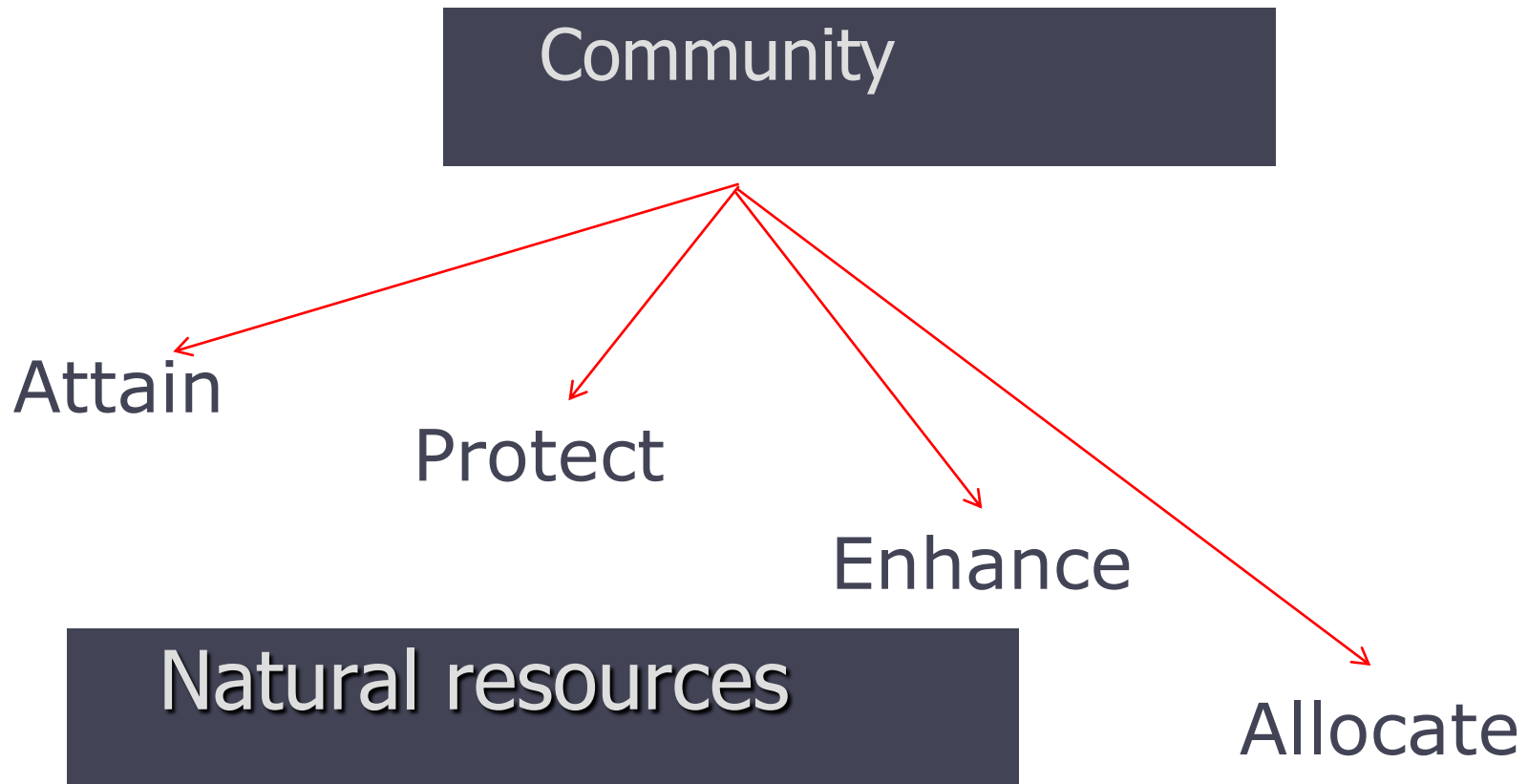
# What is Environmental Management?

## *Definition :*

The recognition that the environment is more than an entity separate from human existence; it is a label for a complex relationship between people and the Earth

*(Bernard A. Weintraub, 1995)*

# Environmental management





# What is Environmental Management?

## *Approaches :*

1. Exploitation
2. Preservation
3. Utilitarian approach
4. Ecological or sustainable approach

# Why a Coordinated Response is Necessary?

environmental mismanagement



human-made disasters



environmental concern



global environmental decision making

# Why a Coordinated Response is Necessary?

**Global environmental community**

```
graph TD; A[Global environmental community] --> B[Global environmental problems]; A --> C[Global environmental management];
```

**Global environmental problems**

**Global environmental management**

# What are the global environmental problems?

- Pollution
- Ozone depletion
- Global greenhouse warming
- Acid rains
- Droughts
- Chemical accidents
- Oil spills
- Decimation of forests
- Species extinction
- Depletion of natural resources
- Disruption of the natural balance
- Environmental refugees

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<https://www.youtube.com/watch?v=p1KxC-S7QgA>

# What are the problems of the environment?

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## **Pollution:**

Degradation of our environment with an enormous variety of contaminants. We have polluted lakes, streams, oceans, and groundwater with sewage, industrial wastes, radioactive materials, heat, detergents, fertilizers, pesticides, and plastics. Millions of tons of sulfur dioxide and carbon dioxide are spewed into the air each year from the combustion of fossil fuels (such as coal, oil), and are causing serious environmental effects.

Is widely perceived as the central theme of environmental concern.

# What are the problems of the environment?

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## **Population increase:**

Rapid growth of the human population.

At the current rate of growth, global population will surge from nearly 5,8 billion in 1996 to roughly 8,4 billion by 2025. Every increase in population results in an increase in the demand for food, water, clothing, shelter, and other goods and services.

The rising population is already resulting in a decline in the overall standard of living in virtually all nations in the world.

# What are the problems of the environment?

## **Excessive resource consumption and depletion:**

Consuming many natural resources (coal, oil, gas, copper, zinc, etc.) at an accelerating pace for excessive production.



# What are the reasons?

- Global change
- Technological advance
- Industrialization
- Environmental mismanagement
- Economic factors
- Availability of natural resources
- Consumption of nonrenewable resources
- Overpopulation
- Exportation of pollution

# What are the ways out?

- **Global environmental management**
- **Improvement of national environmental law**
- **International environmental law**
- **Sustainable development**
- **Global cooperation over environment and natural resources**
- **Environmental economics**
- **Environmental ethics**
- **Environmental education**

# What changes can global environmental management bring?

- **Becoming a dominant force**
- **Trade goes “green”**
- **Changing international law**
- **Changing national law**
- **Lifting up of NGOs**

# What are the problems of global environmental management?

- **Weakens of national sovereignty**
- **Increases of international tension**
- **Reduces free trade**
- **Suffers from numerous monitoring and enforcement problems**
- **Suffers from a lack of local information, lack of competing institutions, and lack of local accountability**

# Lecture 2

## **Sustainable Development**

by Elena Gladun,  
Tyumen State  
University

# Outline

1. The models for development in the modern society
2. The reasons for sustainable development (SD)
3. The definition of SD and its basic elements
4. The evolution of SD
5. The implementation of SD at the international, national and local levels
6. The failures of SD

# Model for Development

## Basic foundations

1. Peace and security
2. Economic development
3. Social development
4. Supportive national governance

# Model for Development

## Failures

1. The growing number of people living in poverty
2. Accelerating deterioration of the global environment



# Model for Development

## Changes

1. A new way of approaching the environment and its relationship to everything else we care about as a society
2. A new paradigm - the well being of the present generation should not be increased at the expense of welfare of future generations, and society's well being should not decline over time
3. A new concept of development – sustainable development

# Model for Development

Sustainability

Implies 'living off the interest', rather than 'living off the capital'

Natural capital

Human capital

Human-made capital

# Natural capital

- Renewable and nonrenewable resources
- Living organisms
- Sink capacity of the nature
- Ecological systems

# Human capital

- Education
- Technology
- Government
- Social and economic systems

# Human-made capital

- Factories
- Farms
- Equipment
- Industrial infrastructure

# Development vs. Environment

## Development

- satisfaction of human needs
- aspirations is the major objective of development

## Environment

- developmental inequity
- environmental degradation

# Development vs. Environment

Sustainable development changes the prior approach to development, which called for peace and security, economic development, human rights, and supportive national governance, by adding a fifth element, protection of the environment



# Development vs. Environment

Sustainable development forces us to see the environment as a source of wealth and well-being, or natural capital, that must be protected for present and future generations

# Development vs. Environment

In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it

# Sustainable Development

## Notion

1. Development that meets the needs of the present without compromising the ability of future generations to meet their own needs (*Brundtland Commission*)
2. Socially responsible economic development that protects the resource base and the environment for the benefit of future generations (*Agenda 21*)
3. 3 Es formula: environment, economy, and equity

# Sustainable Development

## Notion

4. The process of progressive change in the quality of life of human beings, which places it as the center and primordial subject of development, by means of economic growth with social equity and the transformation of methods of production and consumption patterns, and which is sustained in the ecological balance and vital support of the region (*Convention for Cooperation in the Protection and Sustainable Development of the Marine and Coastal Environment of the Northeast Pacific*)

# Sustainable Development

## Elements

1. Intergenerational equity
2. Sustainable use of natural resources
3. Integration of environment and development

# Sustainable Development

## Critical objectives

- reviving growth but changing its quality;
- meeting essential needs for jobs, food, energy, water, and sanitation;
- ensuring a sustainable level of population;
- conserving and enhancing the resource base;
- reorienting technology and managing risk; and
- merging environment and economics in decisionmaking

# Sustainable Development

## Timeline key milestones

### ***1972 UN Conference on the Human Environment (Stockholm)***

- First mentions sustainable development

### ***1987 Brundtland Report (Our Common Future)***

- Gives the definition of “sustainable development”
- Sets the objectives

### ***1992 UN Conference on Environment and Development (Rio Earth Summit)***

- Establishes three legally binding Conventions
- Establishes the Commission on Sustainable Development
- Prescribes a series of recommendations on the institutional framework for sustainable development

### ***2002 World Summit on Sustainable Development***

- Agrees procedural changes to the Commission on Sustainable Development
- Represents a shift from legally-binding global Conventions to implementation orientated partnerships

# Sustainable Development

## Timeline key milestones

### ***2005 Bali Strategic Plan for Technology Support and Capacity-building***

- Agreed by the 23rd session of the UNEP Governing Council
- Outlines a comprehensive plan to enhance UNEP's capacity building element in the context of broader proposed reforms

### ***2005 World Summit and Swiss and Mexican Ambassadors Process***

- General Assembly process on IEG reform established under the General Assembly in response to para 169 of the World Summit outcome document  
Process continues through to 2008/9

### ***2008 Joint Inspection Unit Management Review of Environmental***

- Governance within the UN System
- Report making series of recommendations on IEG in an effort to contribute to stalled negotiations on IEG reform
- Reiterates and reinforces many existing observations and recommendations on coherence, integration, coordination and funding.



# Sustainable Development

## Timeline key milestones

### ***2009 UNEP Consultative Group of Ministers at High Level***

- Representatives on International Environmental Governance
- Convened to address the impasse in IEG reform
- Addresses functional and institutional reform options

### ***2010 Global Sustainability Panel***

- High level panel established to provide recommendations to the preparatory process for UNCSD2012, along the themes identified for the Conference, including the institutional framework for sustainable development

### ***2009 - 2012 UN Conference on Sustainable Development (UNCSD 2012), 'Rio+20'***

- UN General Assembly identifies 'institutional framework for sustainable development' as one of the two major themes for the Conference in December 2009
- Discussions continue on options for reform through the designated preparatory process

# Sustainable Development

## International level

- In 1987 was suggested by the *World Commission on Environment and Development (or Brundtland Commission)*
- In 1992 was endorsed in two nonbinding international texts: 1) *Rio Declaration on Environment and Development* 2) *Agenda 21*
- Appeared in other international documents (*U.N. Framework Convention on Climate Change, Convention on Biological Diversity*)

# Governing Sustainable Development

## International level

- Multi-lateral Environmental Agreements (MEAs)
- Legally-binding Treaties and Conventions
- ‘Soft law’ commissions
- Political review mechanisms

# Sustainable Development

## National level

- The primary responsibility for implementing Agenda 21 and related agreements rests with national governments
- Ensure socially responsible economic development while protecting the resource base and the environment for the benefit of future generations
- Enact effective environmental legislation

# Sustainable Development

## National level

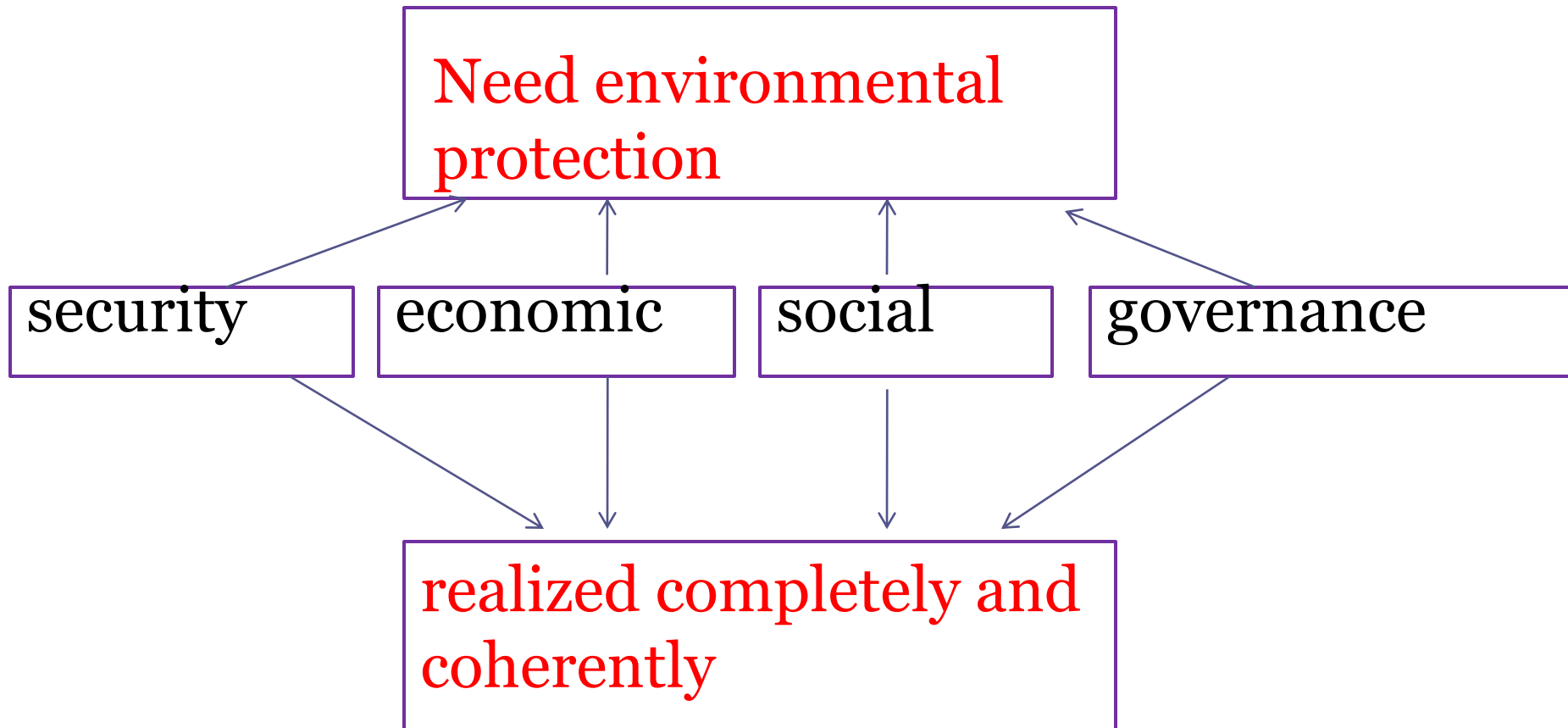
1. Governments need to allow meaningful public participation in their decisions
2. Governments need to delegate decisions to the lowest effective level of government and develop partnerships with other nations
3. Nations should also act in partnership with other nations by cooperating with each other to address international concerns and sharing information

# Sustainable Development

## Local level

- Environmental and social impact assessment
- Standards setting
- Risk analysis
- Cost-benefit analysis
- Natural resources accounting

# Goals of society



# Implementing Sustainable Development

## Failures

- Governance weaknesses
- Patterns of consumption and production
- Prevailing economic models
- Governance of the global commons through the prism of national sovereignty
- Absence of effective compliance mechanisms and enforcement regimes for most global environmental agreements
- Limited opportunities for co-ordination
- UN agencies
- Fragmentation of environmental portfolios
- A great many environmental goals in Agenda 21 have little or no support in treaties



# Lecture 3

## **Global Environmental Politics and Law**

by Elena Gladun,  
Tyumen State  
University

# Outline

1. Globalization and its role for the environment
2. Features of global environmental management
3. Objectives of global environmental management
4. International environmental policy
5. International environmental law and its evolution

mobility of capital  
free flow of information  
modern communication technology



**globalization**

**economic**

**environmental**

**cultural**

# Globalization

*The globalization of environmental issues is fundamentally different from that of economic and cultural relations*

## Economic and Cultural issues

- global trend is only beginning
- dominating local or regional factors
- some positive effects
- global and local principles are not controversial
- freedom and responsibility

## Environmental issues

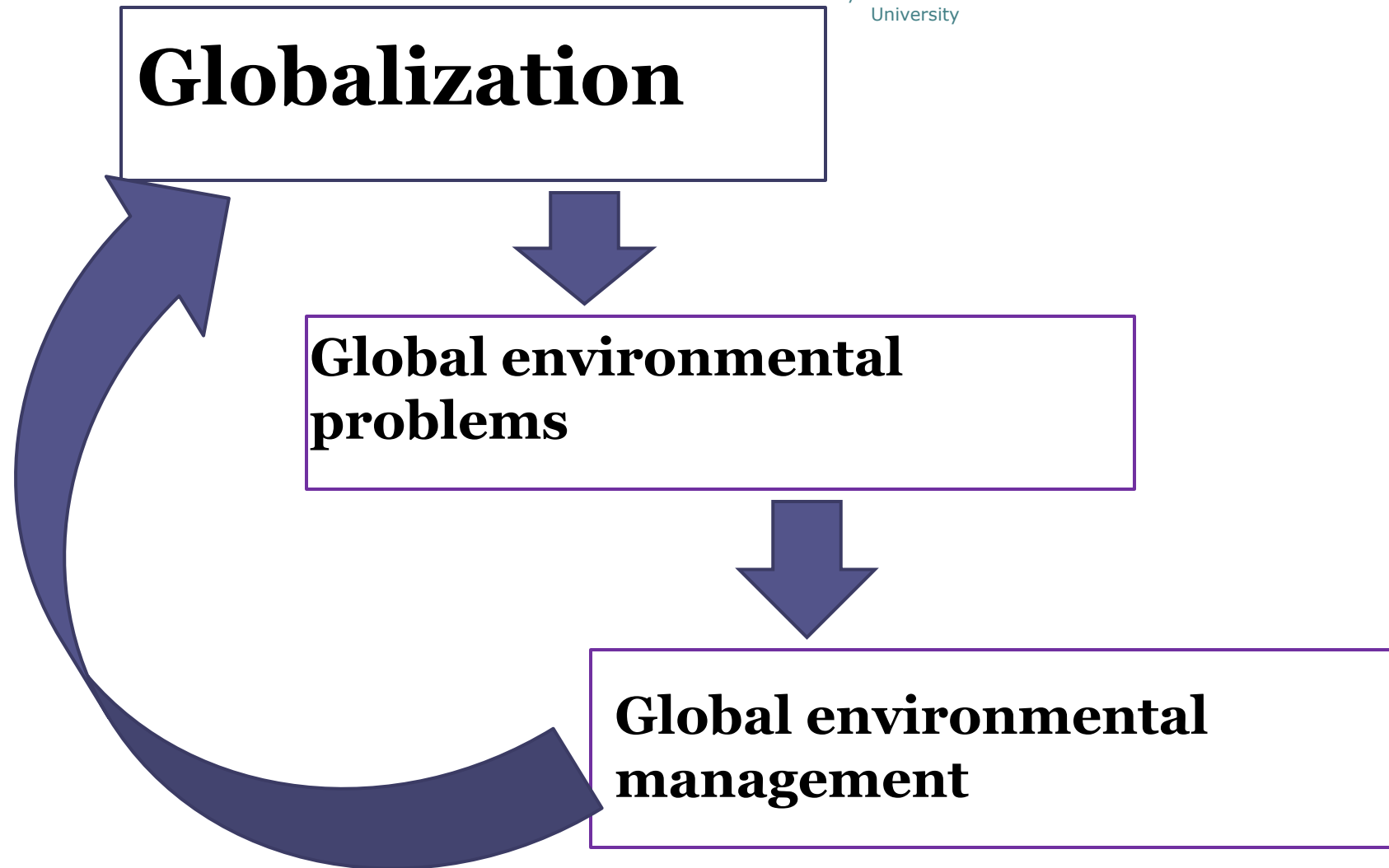
- globalization is quite advanced
- features of the global environment are much more distinct
- inevitable negative global effects
- sovereignty contradicts cooperation
- mutual interdependence of nations and states

# Environmental globalization

*Changes classic rules of international law:*

1. Developing states and industrialized states play different roles
2. Traditional principles of treaty law have to be modified and negated
3. Economic sovereignty of the state has to be addressed
4. The role of civil society and the public increases

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# Global environmental management (governance)

## *Definition:*

1. The sum of organizations, policy instruments, financing mechanisms, rules, procedures and norms that regulate the processes of global environmental protection
2. Concept in political ecology or environmental policy related to defining the elements needed to achieve sustainability

# Global environmental management

## *Specific features:*

- Includes not only government, but also business and civil society
- Emphasizes whole system management
- Participation of nongovernmental organizations (NGOs) and local governments
- Public access to the decisionmaking processes
- Substantive rights to information, participation, and justice



# Global environmental management

*Actors :*

**Global  
community**

**States**

**International  
organizations**

**Legal persons  
Individuals**

# Global environmental management

## *Natural environment:*

**Common natural resources  
and global environment**

**Shared natural  
resources**

**Local natural  
resources with some  
unique value**

## *Human-made environment:*

**Activities with  
transboundary environmental  
effect**

**Technologies of  
transboundary environmental  
effect**

**Particular human behaviors**

<http://www.businessinsider.com/nine-wars-that-were-fought-over-commodities-2012-8#the-american-revolution-in-europe-is-seen-as-a-battle-between-the-british-and-the-french-for-commodities-and-trade-routes-1>

# Global environmental management

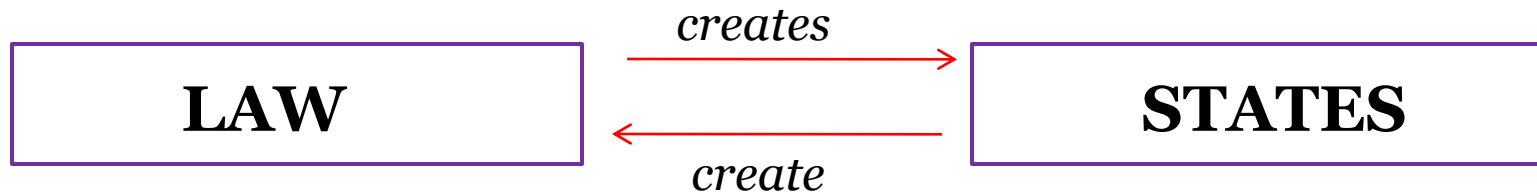
## *Basic elements:*

1. International and local environmental policy
2. International environmental law
3. International environmental institutions
4. Specific implementation mechanisms and techniques

# International Law

The body of binding norms governing the relations between states

# International Law



- establishes the requisite characteristics of a state
- confers upon states unique rights and privileges
- establishes certain responsibilities for a state

- agree about certain rules and conditions to coexist
- create organizations and institutions to govern
- cooperate
- regulate the areas of common concern

# International Environmental Law

*There is no:*

- law-making, law-altering legislature
- law-implementing executive
- system of courts with compulsory jurisdiction

# International Law

## International

*"horizontal" or discretionary law*

- creation dependent upon the comity of parties
- consists of rules and principles recognized by states

## National

*"vertical" command and control*

- division of powers: legislative, executive, judicial
- obligatory rules and regulations



# International Environmental Law

1. International law dealing with the environment as found, primarily, in international agreements (also called treaties, conventions or pacts), together with the national and international mechanisms for implementing them
2. International customary law (the common law of the international community)

# International Environmental Law

## *History prior to 1900 :*

- Few multilateral or bilateral agreements concerning international environmental issues
- International agreements were based on unrestrained national sovereignty over natural resources
- First agreements focused primarily on boundary waters, navigation, and fishing rights along shared waterways
- First agreements did not address pollution or other ecological issues

# International Environmental Law

## *History in the early 1900s :*

- Agreements to protect commercially valuable species
- There was little development and application of customary international norms to environmental issues
- First examples of international environmental adjudication
- Definition of basic environmental issues (harmful conduct, serious continuing harm, monitoring regime, etc.)

# International Environmental Law

## *History in 1950-1972 :*

- Regulated nuclear damage from civilian use and marine pollution from oil
- New environmental awareness off many countries
- Civil liability for oil pollution damage, oil pollution control in the North Sea
- First conventions of nature and natural resources in general

# International Environmental Law

## *History in 1972-1992:*

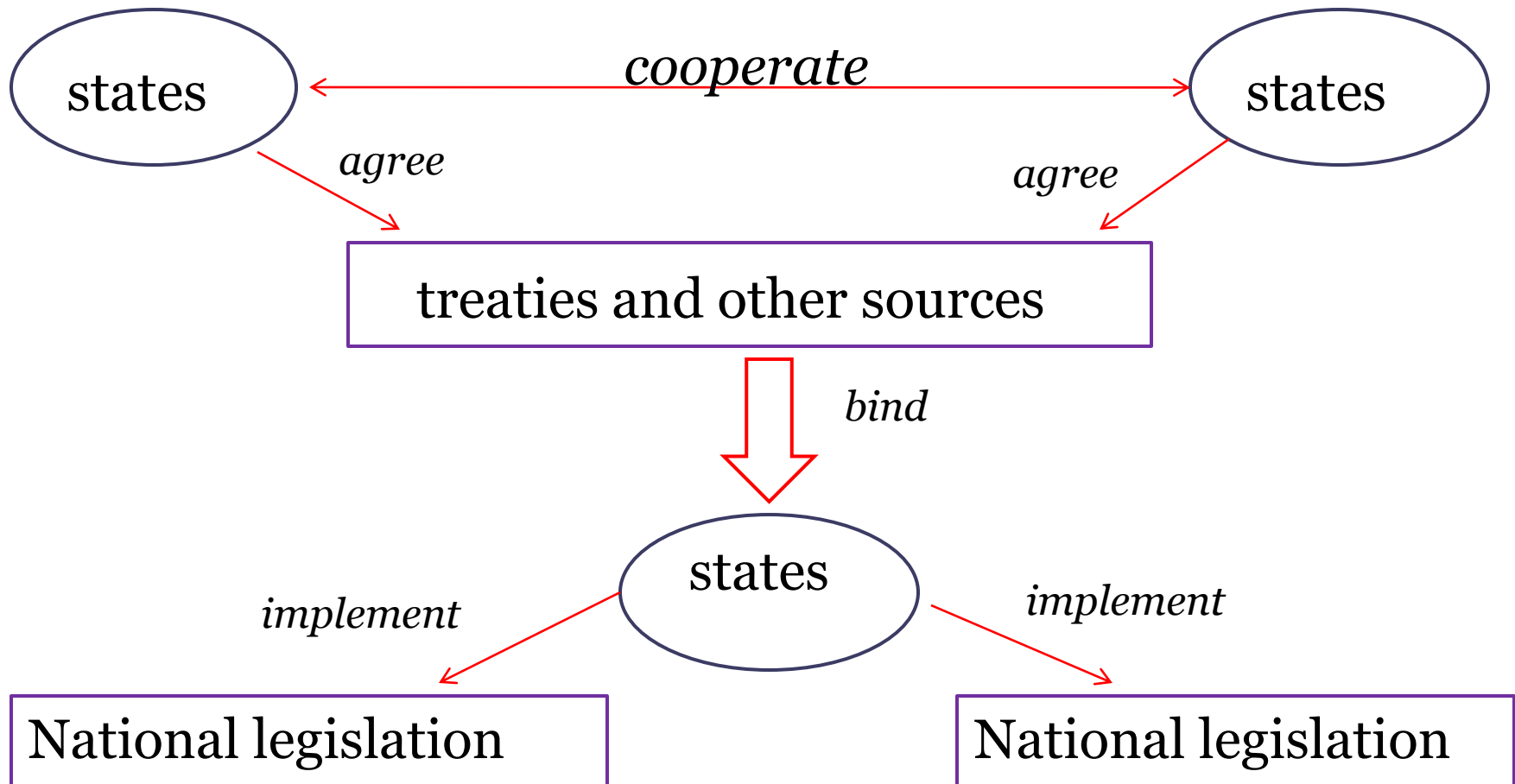
- United Nations Stockholm Conference on the Human Environment was held in 1972
- United Nations Environment Programme (UNEP) was established
- Many new agreements and conventions were adopted
- Hundreds of international environmental instruments have been concluded

# International Environmental Law

## *1992- modern era:*

- United Nations Conference on Environment and Development was held in 1992
- Rio Declaration on Environment and Development stated 27 principles for sustainable development
- Agenda 21 suggested a global plan of action for sustainable development
- The scope of international agreements has expanded significantly
- Reductions in pollutant emissions and changes in control technology
- Changes in legislation at the regional level
- Environmental and economic issues are joined

# International Environmental Law



# Lecture 4

## **Sources of Law**



# Outline

1. The types of sources of international law
2. Treaties
3. Customary law and general principles of law
4. “Hard law” and “Soft law”
5. Sources of international environmental law
6. Characteristics of MEA and conventions

# Sources of International Law

The materials and processes out of which the rules and principles regulating the international community are developed

# Sources of International Law

*Set forth in Art. 38(1) of the Statute of the International Court of Justice*

- (a) international conventions expressly recognized by the contesting states
- (b) international custom, as evidence of a general practice accepted as law
- (c) the general principles of the law recognized by civilized nations
- (d) judicial decisions and the most highly qualified juristic writings as subsidiary means for the determination of rules of law

# Treaty

International agreement concluded between States in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its particular designation

# Treaties

binding

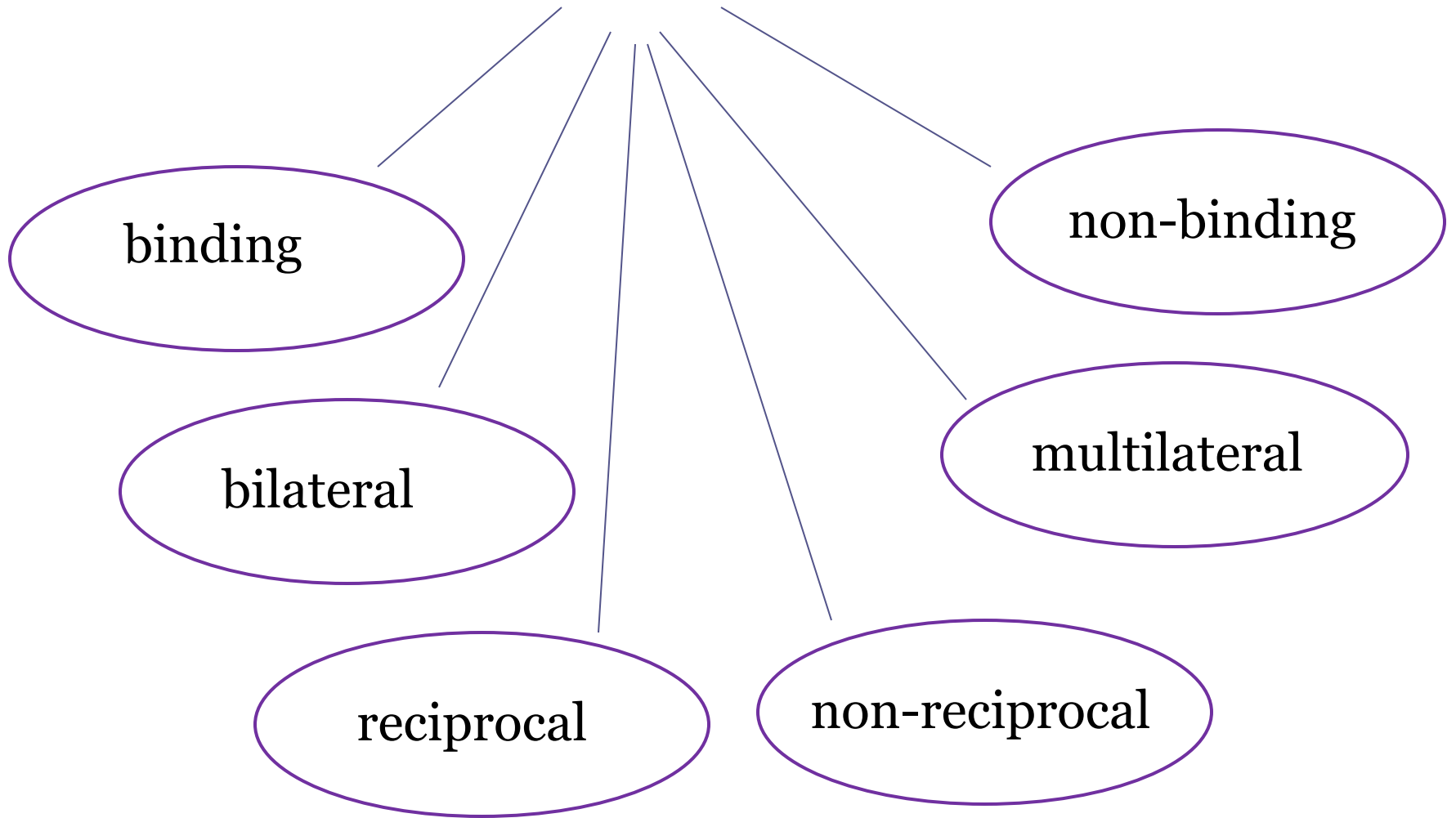
non-binding

bilateral

multilateral

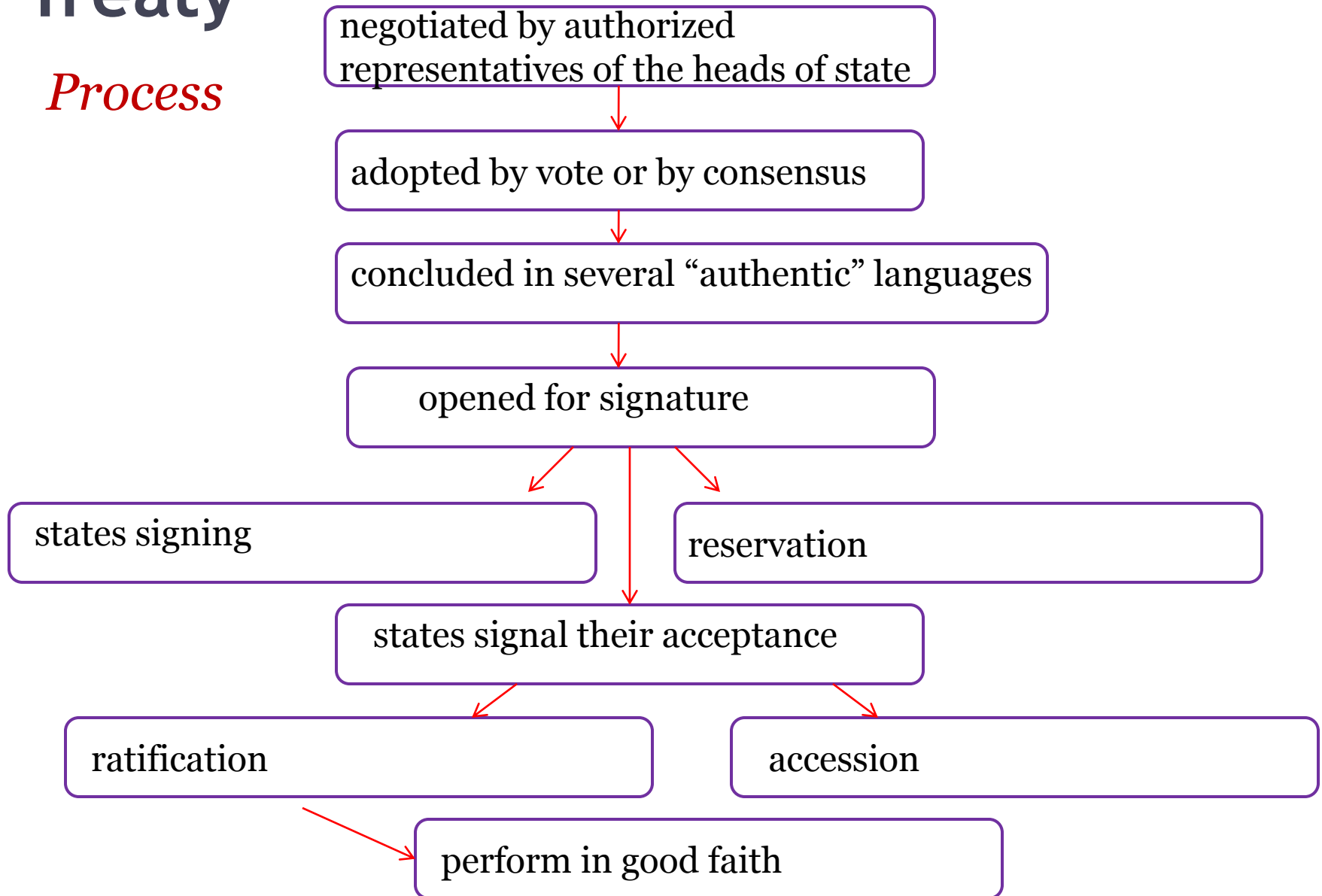
reciprocal

non-reciprocal



# Treaty

## *Process*



# Environmental treaties

## *Unique common characteristics:*

- 1) regulation for both state and non-state actors
- 2) global in their character but can be implemented regionally or locally
- 3) an absence of reciprocity of obligations
- 4) framework structures
- 5) institutions with expansive mandates
- 6) innovative compliance and non-compliance procedures
- 7) simplified means of modification or amendment

# Environmental treaties

- Great Lakes Treaty, 1954
- Antarctic Treaty, 1961
- Treaty banning nuclear weapon tests in the atmosphere, in outer space and under water, 1963
- Polar Bear Treaty, 1973
- Kyoto Protocol, 1997
- Outer Space Treaty, 1967, 2011



# Customary International Law

Widespread and consistent state practices,  
followed because the states believe the practices  
are legally required

# Customary International Law

- Official government texts
- Statements
- Court decisions
- Laws
- Diplomatic exchanges

# General Principles of Law

Concepts and rules found in the major legal systems of the world and appropriate for application in international relations

# Soft Law

Normative statements and agreements placed in non-legally binding or political instruments

# Soft Law

## *Elements*

- Most Resolutions and Declarations of the UN General Assembly
- Statements, principles, codes of conduct, codes of practice etc. (often found as part of framework treaties)
- Action plans
- Other non-treaty obligations

# Soft Law

## *Advantages*

1. International organizations express their will only through recommendations or other declarative acts
2. Enhance the role of specific organs created for environmental protection
3. Easier than treaties to negotiate quickly and amend in the light of new problems
4. States may decide to forego the often lengthy treaty-making process to avoid domestic constitutional or political barriers
5. The subject matter under consideration may make non-legally binding instruments more appropriate than formal agreements
6. Some non-governmental industrial, environmental, and consumer protection associations adopt norms that can be implemented as legal rules

# Environmental Agreements

A decorative graphic consisting of several horizontal lines of varying lengths and colors (teal, light blue, white) extending across the width of the slide below the title.

# Rio Conventions

- Rio Declaration on Environment and Development
- Agenda 21
- Convention on Biological Diversity
- United Nations Framework Convention on Climate Change
- United Nations Convention to Combat Desertification



# Rio Declaration on Environment and Development, 1992

- Adopted by consensus (without vote) by the conference
- Stated 27 principles for sustainable development
- Intended to guide future sustainable development around the world
- Included legally non-binding principles
- Designed to commit governments to ensure environmental protection and responsible development
- Intended to be an Environmental Bill of Rights
- Includes many progressive approaches
- Lacks practical realization and compliance techniques

# Agenda 21

- The comprehensive international "plan of action" or blueprint for sustainable development
- Outlines key policies for achieving sustainable development that meets the needs of the poor and recognizes the limits of development to meet global needs
- Forms the basis for sustainable development strategies
- 40 chapters are broken up into four sections
- Addresses poverty, excessive consumption, health and education, cities and agriculture; food and natural resource management and several more subjects.
- At the local level, local Agenda 21 initiatives establish a territorial strategic plan based on inclusion, incorporating the criteria of sustainable environmental and social policies in the territory concerned

# United Nations Convention on Biological Diversity, 1992

- Was signed by 154 member countries
- Is an international legally binding treaty
- Has three main goals:
  1. conservation of biological diversity (or biodiversity);
  2. sustainable use of its components;
  3. fair and equitable sharing of benefits arising from genetic resources
- Was conceived as a practical tool for translating the principles of Agenda 21 into reality

# United Nations Framework Convention on Climate Change, 1992 Kyoto protocol, 1997

- Has 194 parties
- Is an international legally binding treaty
- The objective is to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system
- Parties to UNFCCC are classified as:
  - 1) Annex I countries – industrialized countries and economies in transition
  - 2) Annex II countries – developed countries which pay for costs of developing countries
  - 3) Non Annex I countries - Developing countries

# Vienna Convention for the Protection of the Ozone Layer, 1985

## Montreal Protocol on Substances That Deplete the Ozone Layer, 1987

- Multilateral environmental agreements
- Ratified by 196 states
- Framework for the international efforts to protect the ozone layer
- Designed to protect the ozone layer by phasing out the production of numerous substances believed to be responsible for ozone depletion
- Widespread adoption and implementation (example of exceptional international cooperation)

# Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, 1998

- Is a multilateral environmental agreement
- Ratified by 41 countries and the European Community
- Increases the opportunities for citizens to access environmental information
- Secures transparent and reliable regulation procedure
- Concerns local, national and transboundary environmental matters
- Focuses on interactions between the public and public authorities

# Convention on Environmental Impact Assessment in a Transboundary Context, 1991

- Is a multilateral environmental agreement
- There are 45 parties to the Convention
- Sets out the obligations of Parties to carry out an environmental impact assessment of certain activities at an early stage of planning
- Lays down the general obligation of States to notify and consult each other on all major projects under consideration

# Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, 1992

- Is a multilateral environmental agreement
- There are 175 parties to the Convention
- Designed to reduce the movements of hazardous waste between nations, and specifically to prevent transfer of hazardous waste from developed to less developed countries
- Intended to minimize the amount and toxicity of wastes generated, to ensure their environmentally sound management as closely as possible to the source of generation



# Convention Concerning the Protection of the World Cultural and Natural Heritage, 1972

- Was adopted by the General Conference of UNESCO
- Ratified by 186 states
- Establishes **UNESCO World Heritage Site** - a place that is listed as of special cultural or physical significance
- As of 2011, 936 sites are listed: 725 cultural, 183 natural, and 28 mixed properties, in 153 States Parties
- Regulates the certain nominating process and selection criteria
- Ensures protection and financial aid to the common cultural heritage of humanity

# Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), 1973

- One of the largest conservation agreements
- Participation is voluntary
- Of the 193 member states of the United Nations, only 18 are not party to the treaty
- Ensures that international trade in specimens of wild animals and plants does not threaten the survival of the species in the wild
- Accords varying degrees of protection to more than 33,000 species of animals and plants
- Works by subjecting international trade in specimens of listed species to certain controls

## Convention on Early Notification of a Nuclear Accident , 1986

## Convention on Assistance in the Case of Nuclear Accident or Radiological Emergency, 1986

- The prime legal instruments that establish an international framework to facilitate the exchange of information and the prompt provision of assistance in the event of a nuclear accident or radiological emergency
- Aim to strengthen international cooperation in order to provide relevant information about nuclear accidents

# United Nations Convention on the Law of the Sea (Law of the Sea Convention ), 1982

- 161 countries and the European Community have joined
- Defines the rights and responsibilities of nations in their use of the world's oceans, establishing guidelines for businesses, the environment, and the management of marine natural resources
- All waters beyond national boundaries were considered international waters: free to all nations, but belonging to none of them
- Codifies customary international law

**International convention for the prevention of pollution of the sea by oil, 1954**

**International Convention on Civil Liability for Oil Pollution Damage, 1969**

**International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage 1971**

- First international convention to prevent pollution of the sea by oil tankers
- Stringent requirements for operational discharges
- New standards on the construction of oil tankers
- Liability for oil pollution damage caused by oil tankers
- A fund to provide additional compensation

# International regulations of oil and gas activities

- London Dumping Convention, 1972
- United Nations Convention on the Law of the Sea, 1982
- Montreal Protocol of the Vienna Convention, 1987
- Agenda 21, 1992
- Basel Convention, 1992
- Framework Convention on Climate Change , 1992
- Kyoto Protocol, 1997
- International Convention for the Prevention of Pollution from Ships (MARPOL)

# Lecture 5

# International Principles and Rules

by Elena Gladun,  
Tyumen State  
University

# Principles in International Law

“*Rules of indeterminate content,*” having a degree of abstraction so great that it is not possible to deduce precise obligations from them with any degree of certainty



# Principles of International Environmental Law

- Emerged from international treaties, agreements, and customs
- Can be applied to the international community for the protection of the environment
- One of the sources of international law
- Provide the general orientation and direction to which positive law must conform
- The consistency and acceptance is not the same for each principle
- Are more widely used in international environmental law than in any other field of international law

# Principles of International Environmental Law

## *Substantive principles*

1. Pollution prevention
2. Precaution
3. “Polluter pays” principle

# Principles of International Environmental Law

## *Principles of process*

1. International cooperation
2. Duty to know
3. Public participation
4. Duty to inform and consult

# Principles of International Environmental Law

## *Equitable principles*

1. Intergenerational equity
2. Equality
3. Common but differentiated responsibilities
4. Sovereignty
5. Equitable utilization of shared resources

# Principles and rules of International Environmental Law

by Elena Gladun,  
Tyumen State  
University

## *Problems in evolution:*

- Have been evolving over a short period of time
- Have been evolving in different contexts
- Some of the principles have no definite meaning
- Are rather controversial
- There is no agreement concerning the legal consequences

# Pollution prevention

States have the obligation to prevent damage within its own jurisdiction

Each state is required to exercise “*due diligence*,” which means to act reasonably and in good faith and to regulate public and private activities subject to its jurisdiction or control that are potentially harmful to any part of the environment

# Prevention of harm

## *Specific features*

1. “*Due diligence*” - to act reasonably and in good faith and to regulate public and private activities subject to its jurisdiction or control that are potentially harmful to any part of the environment
2. Not an absolute duty to prevent all harm
3. Prevention of *significant* harm to the environment
4. Mitigation of harm from lawful activities that may harm the environment
5. Complex implication owing to the number and diversity of the legal instruments in which it appears

# Pollution prevention

## Prevention of harm

### *Realizes through:*

- environmental impact assessments
- authorization procedures (licensing)
- environmental standards
- emission limits
- BAT
- monitoring
- access to information
- use of penalties



# Precautionary principle

Where there are warnings of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation

# Precautionary principle

Preparing for potential, uncertain, or even hypothetical threats, when there is no irrefutable proof that damage will occur

States wishing to undertake certain activities will have to prove that the activities will not cause harm to the environment

# Precautionary principle

## *Realizes through:*

- Consideration of the circumstances and the situation
- Credible evidence
- Scientific opinion and reliable scientific methodology
- Public participation of the decision

# “Polluter Pays” principle

The state imposes the costs of environmental harm on the party responsible for the pollution.

# “Polluter Pays” principle

## *Specific features*

1. The most efficient way of allocating costs of pollution prevention
2. Control measures introduced by the public authorities
3. Encourages rational use of scarce environmental resources
4. Is intended to avoid distortions in international trade and investment

# International cooperation

States have the duty to cooperate in

- 1) investigating, identifying, and avoiding environmental harm
- 2) generation and exchange of scientific, technical, socioeconomic, and commercial information

# Duty to know

Proper action to prevent harm to the environment cannot be taken without knowledge of the environmental conditions, nor can the impact of proposed activities be evaluated without basic information on the relevant area

# Duty to know

*Realizes through:*

- Surveillance
- Reporting
- Monitoring



# Duty to know

## *Monitoring:*

Provides constant feedback for decisionmaking,  
from long-term protection to rapid guidance in  
emergencies

# Duty to know

## *Surveillance :*

A scientific activity, on which further actions or precautionary activities may be based

# Duty to inform and consult

A state that plans to undertake or authorize activities capable of having significant impact on the environment of another state must inform the latter and should transmit to it the pertinent details of the project

# Duty to inform and consult

## *Realizes through:*

- Observations concerning the project
- Prior and timely notification
- Relevant information
- Consultations at an early stage and in good faith
- Immediate information of any sudden situation or event that could cause harm to the environment

# Public participation

Including the public in environmental decisionmaking

The principle is based on the right of those who may be affected to have a say in the determination of their environmental future

# Public participation

## *Realizes through:*

- Elections
- Lobbying
- Grass roots action
- Public speaking
- Hearings
- Participation in environmental impact assessment
- Participation in permitting procedures

# Duty to compensate for harm

States are responsible to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or areas beyond the limits of their national jurisdiction

# Duty to compensate for harm

## *Illegal or wrongful act*

- a) conduct consists of an action or omission imputed to a state under international law
- b) such conduct constitutes a breach of an international obligation of the state



# Duty to compensate for harm

## *State liability*

1. fault (*negligence*)
2. strict liability (*there is a presumption of responsibility but defenses are available*)
3. absolute liability (*no cause of justification is possible*)

# Duty to compensate for harm

## *Environmental damage*

Any injury to natural resources as well as degradation of natural resources, property, landscape, and environmental amenities

# Duty to compensate for harm

## *In case of violation*

- to stop the wrongful conduct
- to re- establish the condition that existed prior to the wrongful conduct
- to provide compensation

reparation

restitution

reconstruction

# Common but differentiated responsibility

States should comply with international obligations for the conservation of the environment on the basis of equity and in accordance with their common but differentiated responsibilities and respective capacities

# Common but differentiated responsibility

All states are bound to participate in the environmental solution, the adoption of national standards and international obligations can differ

# Common but differentiated responsibility

1. States should participate in the world effort for conservation the environment
2. In performing their duties different circumstances of states are taken into account

# Intergenerational Equity

Those living have received a heritage from their forbearers in which they have beneficial rights of use that are limited by the interests and needs of future generations

# Intergenerational Equity

Those living have received a heritage from their forbearers in which they have beneficial rights of use that are limited by the interests and needs of future generations



# Equality

1. All states have an equal right to ecological well-being
2. Ecological well-being of one state can not be achieved for the price of ecological well-being of other states
3. Equitable allocation of resources and burden-sharing

# National sovereignty over resources

The right of peoples and nations to permanent sovereignty over their natural resources and wealth must be exercised in the interest of their national development, and of the well-being of the people of the state

## **National sovereignty**

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graph TD; A[National sovereignty] --> B[National rights]; A --> C[National obligations];
```

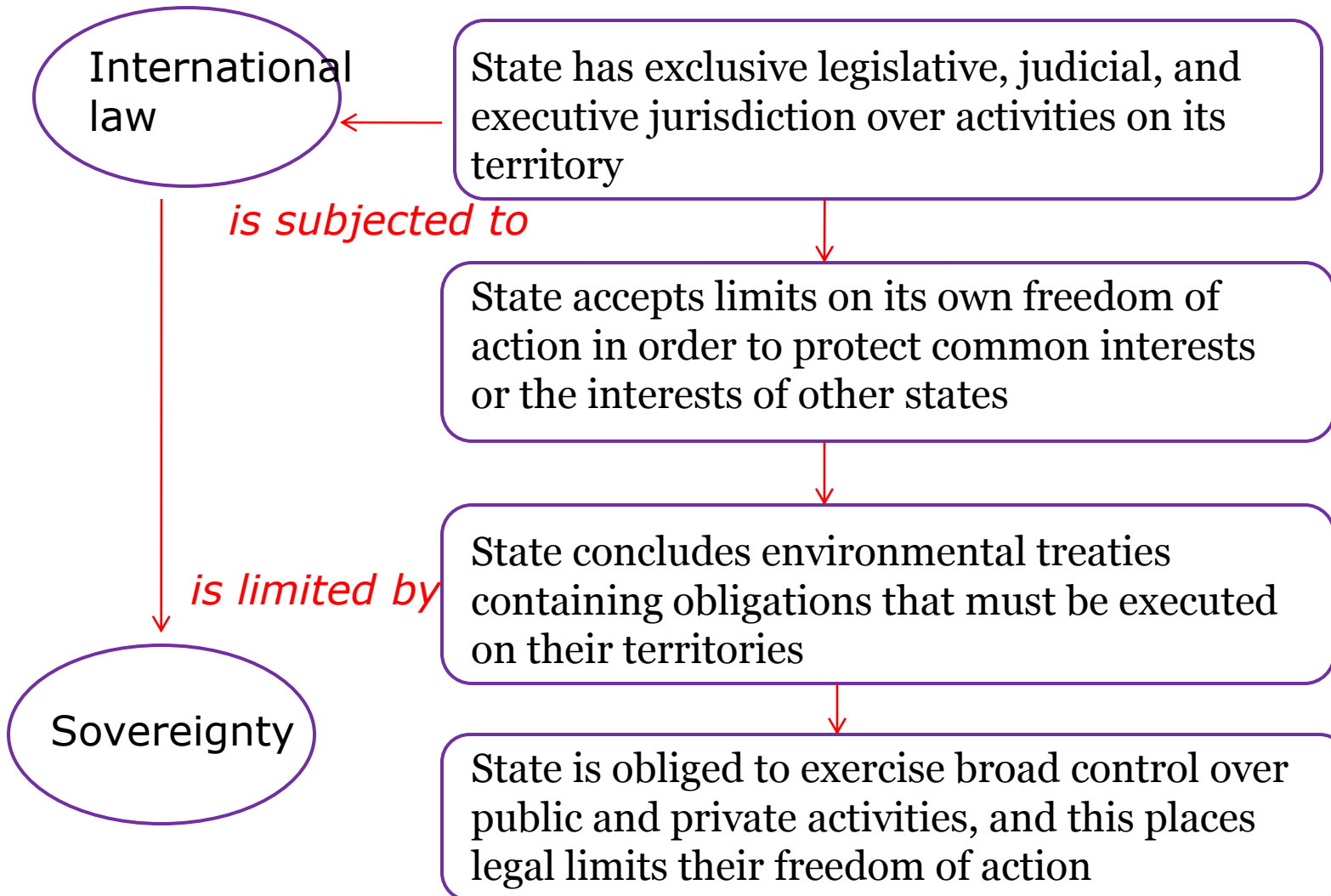
### **National rights**

- to exploit its own resources
- to pursue its own environmental and developmental policies

### **National obligations**

- to protect common interests
- not to damage of other states

# National sovereignty over resources



# Responsibility not to cause environmental damage

States have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or areas beyond the limits of national jurisdiction

# Sovereignty vs. responsibility

**State's  
resources**

- 1) sovereign rights over their natural resources
- 2) a general duty not to cause damage to the environment of other states

**Shared  
resources**

- 1) the obligation for equitable and harmonious utilization
- 2) cooperation
- 3) information, prior consultation and notification

**Areas beyond  
the limits  
of national jurisdiction**

- 1) only administration of common heritage of humanity
- 2) obligation not to cause damage
- 3) cooperation in the conservation
- 4) sharing the economic benefits

**Other  
states'  
resources**

# Lecture 6

## **Making International Law and Management Work**

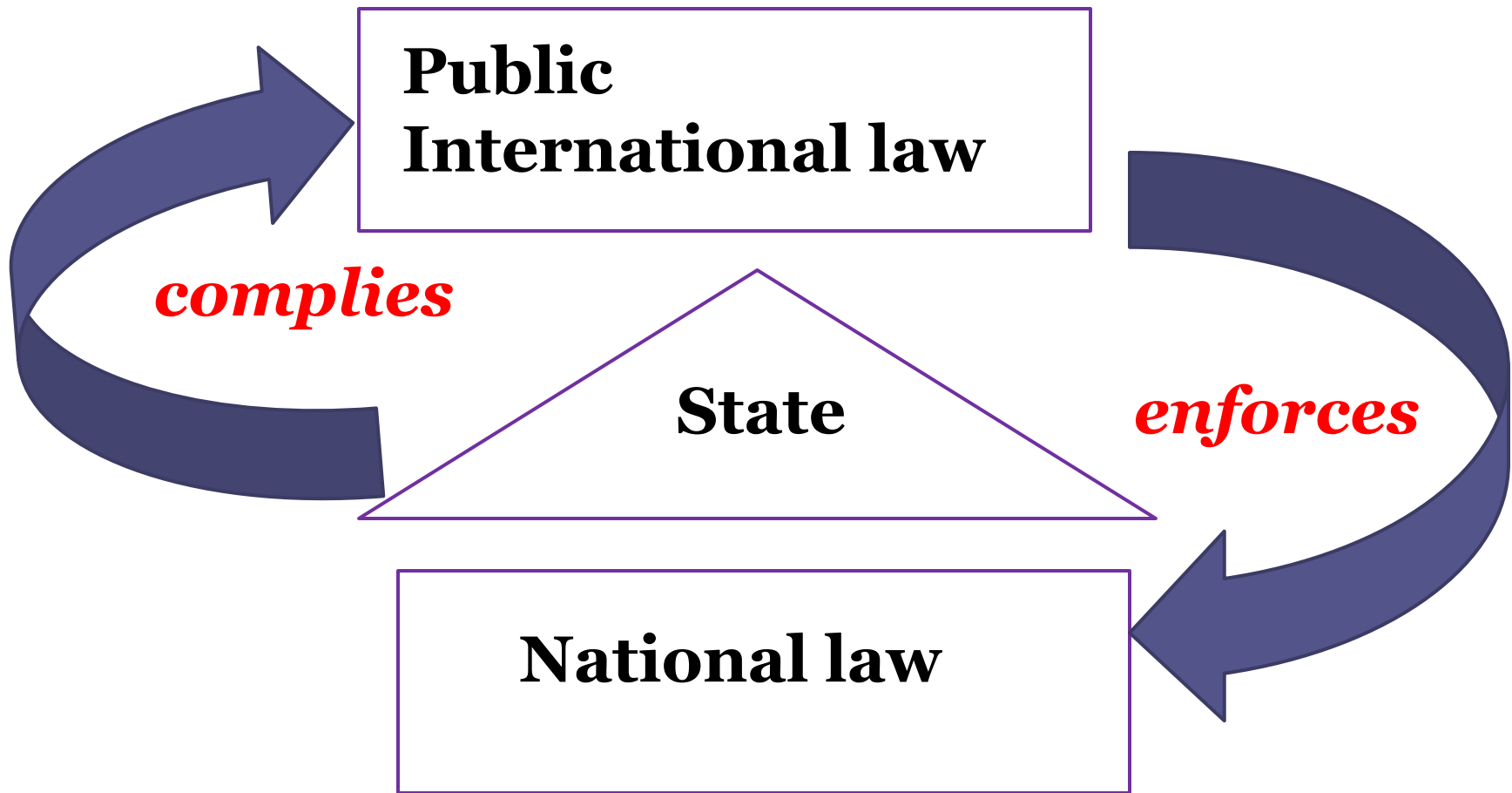
by Elena Gladun,  
Tyumen State  
University

# Outline

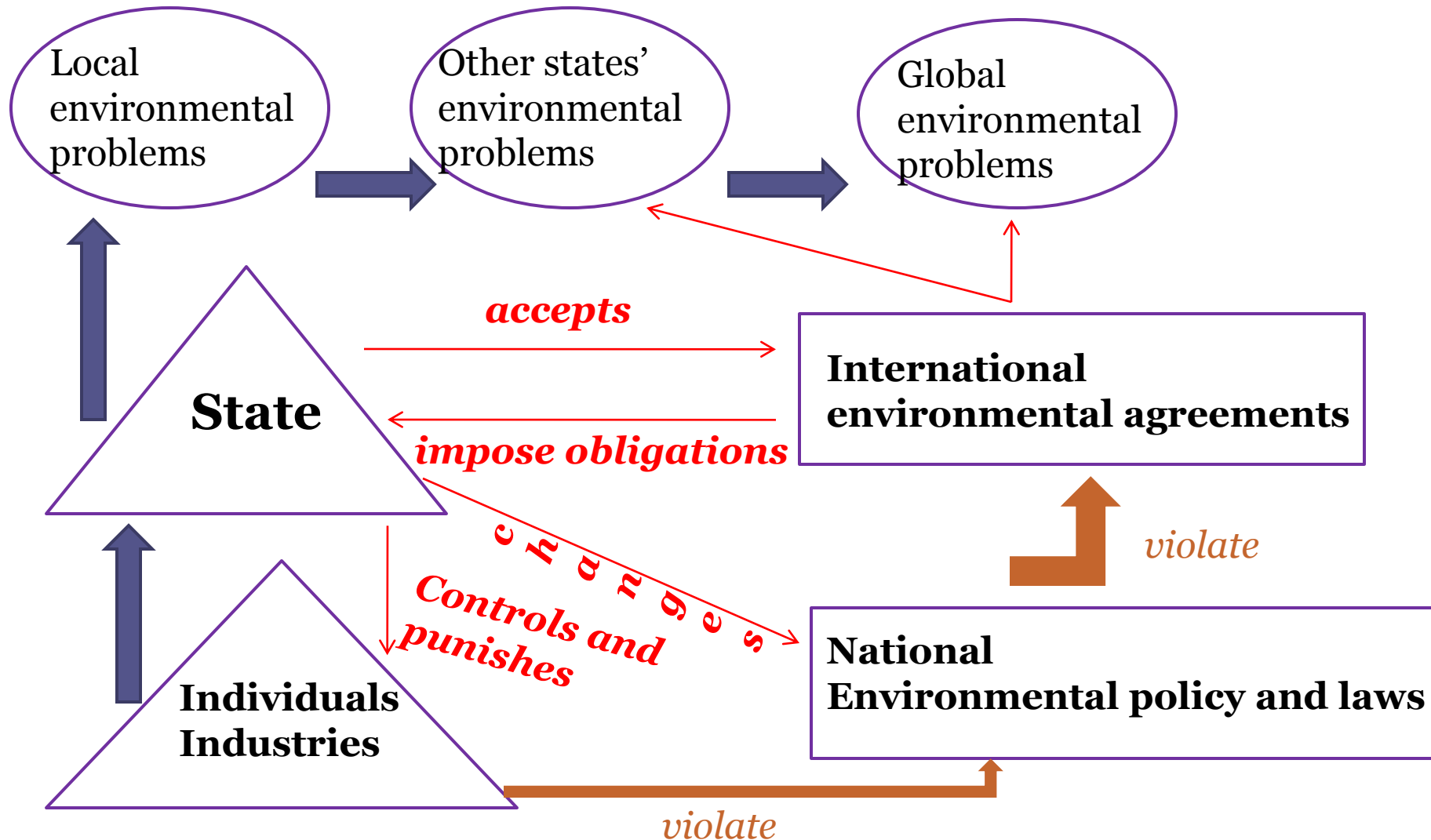
- State's role in global environment
- The terms – compliance and enforcement
- Compliance mechanisms
- Enforcement mechanisms
- The notion of responsibility
- Responsibility in environmental area



# Compliance and Enforcement

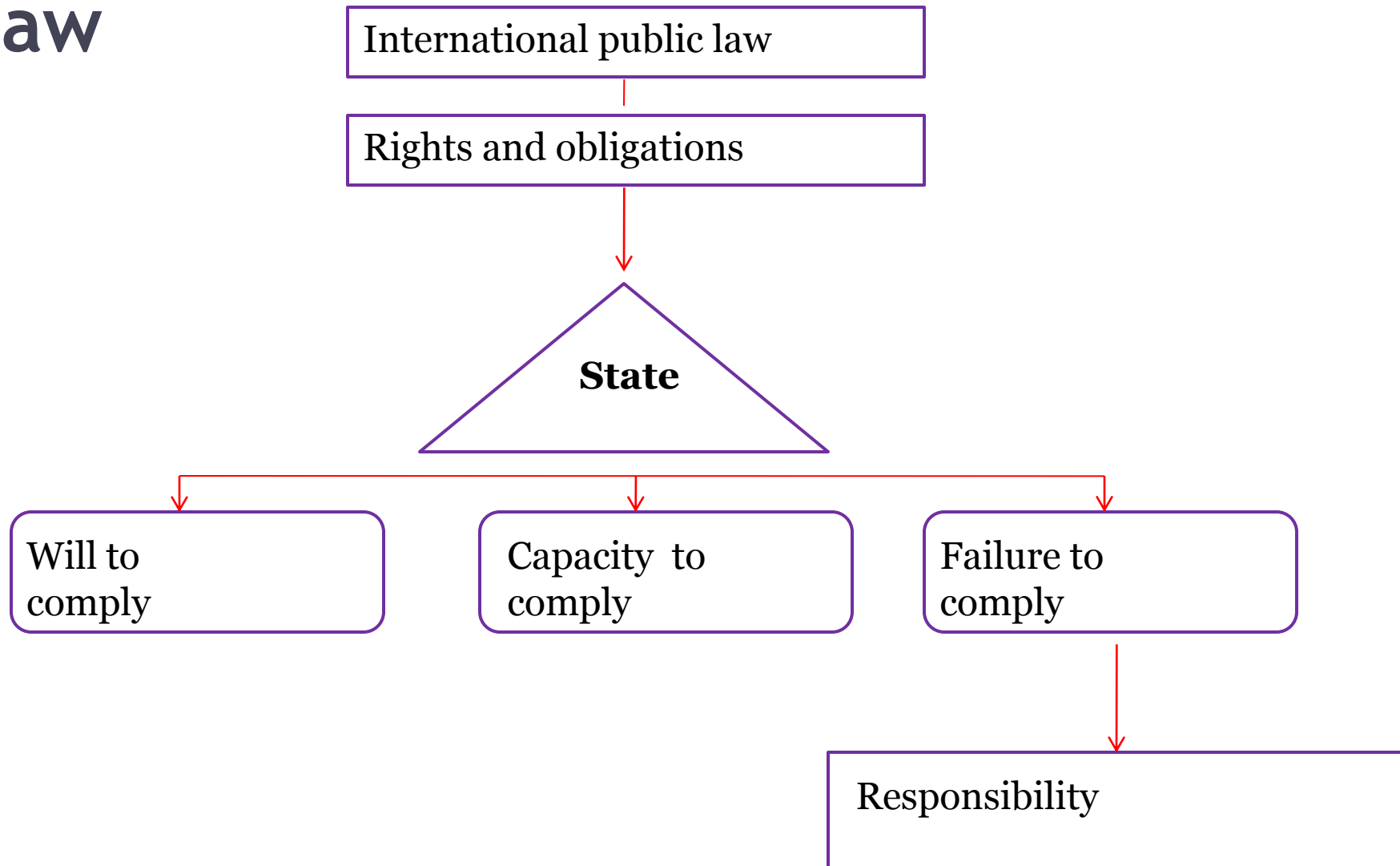


# State's role in global environment



# State's role in public international law

by Elena Gladun,  
Tampere State  
University



# State's role in public international law

- ***Compliance is*** the degree to which state behavior conforms to what the agreement prescribes or proscribes
- ***Effectiveness is*** the degree to which the agreement has an impact on state behavior
- ***Enforcement is*** the existence of sanctions or some material consequence in the event that noncompliance occurs
- ***State responsibility*** is the consequences of a state's failure to comply with its international obligations

# Compliance

## *Definition*

The full implementation of environmental requirements

Compliance occurs when requirements are met and desired changes are achieved.

# Compliance

## *Definition*

Conforming to a rule, such as a specification, policy, standard or law

A state of conformity or identity between an actor's behavior and a specified rule

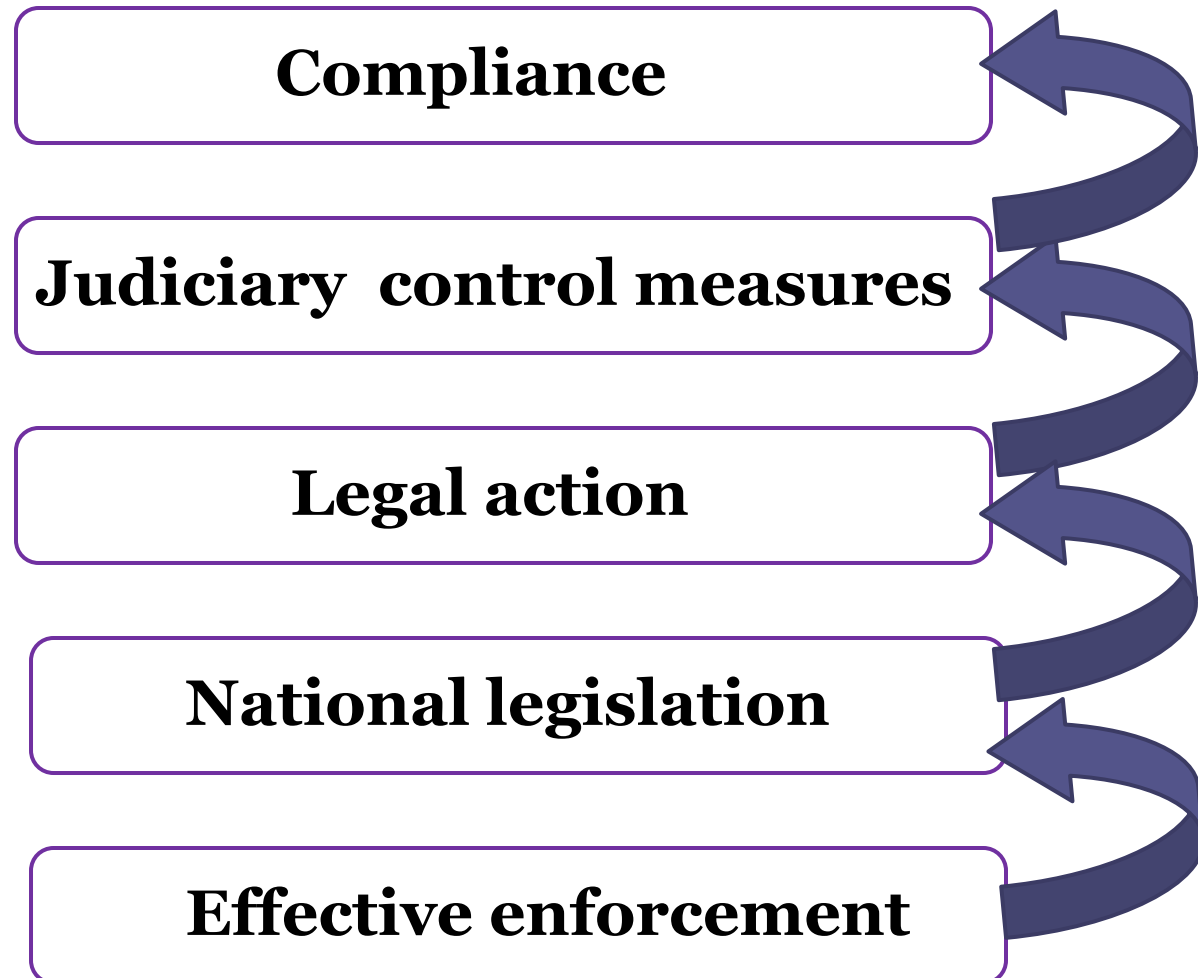
# Enforcement

## *Definition*

The set of actions that governments or others take to achieve compliance within the regulated community

Usually includes a range of activities such as monitoring, inspecting, reporting, gathering evidence to detect violations, and negotiating with individuals and industrial plant operators to develop mutually acceptable methods for achieving compliance

# Implementation of international legal requirements





# Compliance

## *Process-oriented approach*

- Information
- Communication
- Consultation
- Monitoring
- Technical assistance
- Empowerment of all stakeholders

# Compliance

## *Financial mechanisms*

- International financial institutions
- Global Environment Facility (GEF)
- Policy dialogue
- Grants
- Loans
- Technical assistance

# Compliance

## *International monitoring*

- Conferences of the parties
- Separate secretariats
- Financial mechanisms
- Supervision
- Adjudication and arbitration
- International organizations and NGOs

# Compliance

## *Reasons for countries' failure to comply*

1. Fragmented internal decision-making processes on environmental and investment matters, conflicting mandates and lack of cooperation among governmental agencies and by industry enterprises.
2. Lack of familiarity with the requirements of environmental conventions and of available sources of external institutional and financial assistance.
3. Limited enforcement capability to support environmental requirements.
4. Difficulties in arranging financing, especially of local costs for environmental investments.
5. Inability to develop less environmentally damaging substitutes due to scientific and technological weaknesses.

# Enforcement

## *Mechanisms*

- National laws and other legal instruments
- Necessary authority for enforcement
- Legal action
- Inspection
- Reporting
- Evidence gathering
- Record keeping
- Negotiation
- Dispute settlement

# Enforcement

## *Legal action*

- Administrative measures
- Civil law application of liability rules
- Criminal sanctions

# Enforcement

## *New approaches*

- Monitoring
- Economic incentives
- Economic sanctions

# Enforcement

## *Enforcement Authorities*

- Bar a facility or company from government loans, guarantees, or contracts
- Require service or community work to benefit the environment
- Seek reimbursement for public authorities' cleanup expenses
- Impose fines
- Seize property
- Impose restrictions on financial assistance
- Seek imprisonment



# Enforcement

## *Environmental Managers*

- Implementing legal regulations
- Implementing measures and conditions of specific environmental media
- Keeping records of the results of environmental check-ups or audits
- Informing the public
- Proposing the application of suitable technologies
- Effecting the development and implementation of measures
- Educating the staff

# Enforcement

## *Public participation*

- Motivating the community
- Creating public awareness
- Participation in environmental decision-making
- Education
- Incentives

# Enforcement

## *International bodies*

- United Nations Environment Programme (UNEP)
- International Law Association (ILA)
- International Union for Conservation of Nature and Natural Resources (IUCN)
- World Wide Fund for Nature (WWF)
- World Meteorological Organization (WMO)
- Greenpeace

# Enforcement

## *International bodies' failure*

- None has enforcement power
- Limited by personnel and financial constraints
- Inadequately funded
- Lack of implementation and enforcement powers at the national level

# State responsibility

## *Definition*

Requires a state that breaches an international obligation to cease the violation and provide reparations for any harm caused to another state

# Responsibility

## *Forms*

1. Fault responsibility
2. Objective responsibility
3. Absolute responsibility
4. Criminal responsibility

# Responsibility

## *Incorporation into IEL*

- 1941 Trail Smelter arbitration of
- 1949 UN Survey of International Law (art. 34)
- 1972 Stockholm Declaration (principle 21) 2001  
1992 Rio Declaration (principle 2)
- Draft Articles on the Responsibility of States for  
Internationally Wrongful Acts (art. 2 and 3)

# Responsibility

## *Main issues*

- Primary rules of conduct for states, i.e., their rights and duties, establish whether an act or omission constitutes a wrongful act
- The law of state responsibility requires establishing a link of causality between a culpable act and the damage suffered
- The law concerns the extent to which states are accountable for the actions of private parties under their jurisdiction or control
- The law indicates the scope and purpose of reparation



# Responsibility

## *Remedies*

**Reparation**

**Restitution**

**Sanctions**

# Lecture 7

## **International Environmental Techniques and Implementing Measures**

by Elena Gladun,  
Tyumen State  
University

# Environmental Techniques

- Environmental impact and/or risk assessment procedures
- Environmental auditing
- Environmental management programs
- Standards
- Licensing / Contracts
- Civil liability
- Economic incentives
- Environmental restrictions on trade

# Environmental Impact Assessment

## *Definition*

Assessment of the possible positive or negative impact that a proposed project may have on the environment, together consisting of the natural, social and economic aspects.

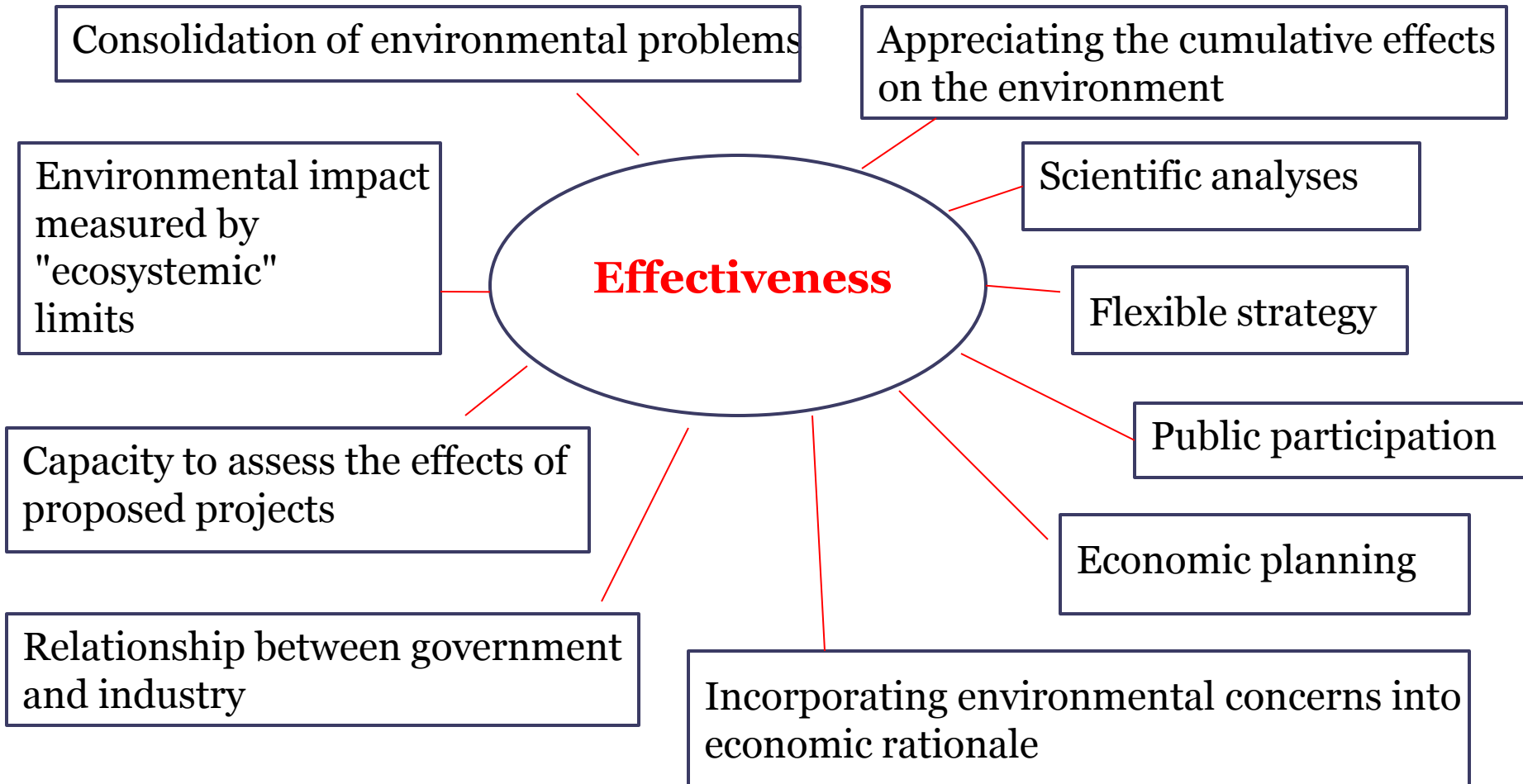
Process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made

# Environmental Impact Assessment

## *Purpose*

To ensure that decision makers consider the ensuing environmental impacts when deciding whether to proceed with a project

# Environmental Impact Assessment



# International EIA Regimes

- World Charter for Nature, 1982
- European Environmental Impact Assessment Directive 85/337, 1985
- Convention on Environmental Impact Assessment in a Transboundary Context, 1991
- Rio Declaration, 1992
- Agenda 21
- Convention on Biological Diversity, 1992

# International EIA Regimes

1. Norms on EIA in different MEAs
2. Environmentally sensitive areas
3. Transboundary pollution assessment
4. Not a universal obligation
5. A customary obligation to notify other states of cross-border effects and possibly consult with them
6. Requirements to assess the effects of any polluting activity



# International EIA Regimes

## *Types*

1. Lists of categories of activities that by their nature are likely to have significant effects;
2. Lists of areas that are of special importance or sensitivity (such as national parks); the impact of any activity within or affecting such areas must be assessed;
3. Lists of categories of resources or environmental problems that are of special concern;
4. An initial environmental evaluation of all activities, a quick and informal assessment to determine whether the effects are likely to be significant;
5. Defined and listed criteria which make an impact “significant.”

# International EIA Regimes

## *Transboundary Environmental Impact Assessment (Espoo)*

The Treaty creates obligations to take all appropriate and effective measures to prevent, reduce, and control significant adverse transboundary environmental impact from proposed activities, and ensures that affected parties are notified of a proposed activity that is likely to cause a significant adverse transboundary impact.

# International EIA Regimes

## *European Environmental Impact Assessment Directive*

The Directive goes further by imposing standards on one particular member state where the environmental effects are confined to that state.

# Environmental Audits

## *Definition*

Comprehensive evaluation the company's facilities, operations and procedures in order to achieve compliance with applicable environmental regulatory requirements

Process in which operations and facilities are examined to determine whether they satisfy environmental law and regulations, as well as corporate policies

# Environmental Audits

## *Effectiveness*

- To identify problems and to suggest remedies
- To achieve cost effective compliance and minimize risk
- To make investment decisions
- To help industry in establishing "environmental confidence"
- To have substantial political consequences for the future

# Environmental Audits

## *Forms*

### Compliance audits

#### *Definition*

Investigation by internal or external environmental specialists of a facility's compliance with applicable environmental laws and regulations and the identification of non-regulatory environmental liability risks

### Management audits

#### *Definition*

Reviewing the managerial risk control systems and procedures used by the corporation or facility to detect and remedy possible violations and potentially problematic environmental conditions

# Management audits

- Integral part of an entity's overall environmental management system (EMS)
- Voluntary management auditing
- Self-analysis in order to avoid liability for non-compliance

# Environmental Audits

## *Performance*

1. Internal audits
2. External audits



# Environmental Audits

## *Failures*

- Requires substantial human and financial resources
- Temporary disruptions of industry operations
- Confidentiality of the program
- Corporate and personal liability
- No guarantee against law violations and prosecution

# Environmental management system (EMS)

## *Definition*

Management of an industry environmental programs in a comprehensive, systematic, planned and documented manner. It includes the organizational structure, planning and resources for developing, implementing and maintaining policy for environmental protection

# Environmental management system (EMS)

## *Effectiveness*

- To improve environmental performance
- To manage an industry's environmental affairs systematically
- To addresses immediate and long-term impacts on the environment
- To address environmental concerns through the allocation of resources
- To improve the system on continual basis

# Environmental management programs

- **EMAS** - *Eco-Management and Audit Scheme*
- **ISO** - *International Organization for Standardization*
- **OHSAS** - *Occupational Health and Safety Management Systems*
- **BS** – *British Standards*

# Environmental management system

## *EMAS requirements*

1. Organization and training
2. Preparation of registers on environmental effects
3. Recordkeeping
4. Auditing

# International standards system

## *ISO structure and elements*

1. Environmental policy
2. Planning procedures
3. Implementation and operation standards
4. Auditing process

# Standards

## *Definition*

Prescriptive norms that govern products or processes or set limits on the amount of pollutants or emissions produced

# Standards

## *Effectiveness*

- Clear and easy to enforce
- To rely on scientific evidence
- To use different standards for different types of industries



# Standards

## *Categories*

1. Process
2. Product
3. Emission
4. Quality

# Process standards

Specify design requirements or operating procedures applicable to fixed installations, such as factories, or designate permissible means and methods of activities like hunting or fishing

# Product standards

- Used for items that are created or manufactured for sale or distribution and regulate
- the physical or chemical composition of items
  - the technical performance of products
  - the handling, presentation, and packaging of products

# Emission standards

Specify the quantity or concentration of pollutants that can be emitted in discharges from a specific source

# Quality standards

Fix the maximum allowable level of pollution in an environmental milieu or target during normal periods

# Standards

## *Failures*

- Inflexibility
- Pollutant specific, not accounting for synergistic impacts
- Uniform reductions where costs of compliance vary

# Civil liability

## *Definition*

Standard enforcement mechanisms that includes fines, treble damages, punitive damages and other penalties not related to compensation for actual damage

# Civil liability

## *Effectiveness*

- To be a deterrence to industries conducting environmentally dangerous activities
- To allocate resources for restoring the natural systems or fixing the damage
- To change behavior rather than being incorporated as a cost of doing business



# Civil liability

## *International regime*

- 1972 Stockholm Declaration (Principle 22)
- 1992 Rio Declaration (Principle 13)
- ILC Principles of International Liability for Injurious Consequences Arising out of Acts Not Prohibited by International Law 2001,2004
- Paris Convention on Third Party Liability in the Field of Nuclear Energy 1960
- Vienna Convention on Civil Liability for Nuclear Damage 1963
- International Convention on Civil Liability for Oil Pollution Damage 1969
- International Convention on the Establishments of an International Fund for Oil Pollution Damage 1971/1978
- International Convention on Civil Liability for Bunker Oil Pollution Damages 2001/2008

# Civil liability

## *National regime*

- The U.S. Tort Litigations
  - ✓ Cases on harm caused by radiation 1950s, 1960s
  - ✓ Private tort claims against tobacco industry
  - ✓ Oil spill cases: Exxon Valdez case 1989, Gulf of Mexico oil spill case 2010
- China Tort Litigations
- Russia Tort Litigations

# Civil liability

## *Failures*

- Nations are not willing to create international regime for liability
- Companies are unable to recover damages
- Few treaties including provisions on liability
- Only 5 MEAs agreements on liability are in force
- Difficulties in evaluating damages and environmental harm

# Economic incentives

## *Paradigms*

1. Totally free market system
2. Cost-benefit system
3. User-charge system

# Economic incentives

## *Forms*

- Taxes
- Subsidies
- Marketable rights
- Effluent fees
- Emission trading
- Pollution insurance
- Waste deposit and refund programs
- Compensatory mitigation banking

# Economic incentives

## *Effectiveness*

- To promote innovation
- To reduce litigation and administrative costs
- To provide flexibility

## *Failures*

- Depend on country's economic system
- To be used with other tools
- Do not achieve all the objectives

# International trade framework

- General Agreement on Tariffs and Trade (GATT)
- World Trade Organization (WTO) agreements
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
- Montreal Protocol on Substances that Deplete the Ozone Layer
- North American Free Trade Agreement (NAFTA)
- Central European Free Trade Agreement (CEFTA)

# International trade framework

## Critics

1. Competition among different nations places downward pressure on environmental standards, as each nation seeks to attract and retain corporate investment
2. The GATT does not provide appropriate rules, and the WTO does not provide a competent forum, for the resolution of complex international environmental questions

## Promoters

1. There is insufficient economic evidence to support the claim that increased international trade will result in a reduction of environmental standards
2. The economic benefits of increased international trade outweigh these environmental costs



# International trade restrictions

## *Agenda 21:*

States should avoid use of trade restrictions or distortions to offset differences in cost arising from differences in environmental standards and regulations, and should ensure that environmental regulations or standards do not constitute a means of arbitrary or unjustifiable discrimination or disguised restriction on trade

# Environmental restrictions on trade

- Restrictions on export or import between states
- Product requirements
- Health regulations
- Sanitary regulations
- Licensing
- Minimum price regulations
- Eco-labeling and packaging requirements
- Industry standards
- Recycling requirements

# Environmental restrictions on trade

## *Conditions*

1. Measures should not be more trade-restrictive than necessary
2. Restrictions should be based on scientific grounds
3. States ensure transparency through notification