

ENHANCING COMPETENCIES OF CENTRAL ASIAN UNIVERSITIES IN AGRICULTURAL POLICY FOCUSED ON ENVIRONMENTAL PROTECTION & LAND MANAGEMENT "ECAP"

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PROGRAMME

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The Development and Implementation of Environmental Policy (world, EU, individual states)

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Development of Environmental Policy

LECTURE OUTLINE

1. Public Policy Development Process
2. Sustainable Development
3. Internation Law
4. International Cooperative Agreements
5. EU Legislation




Development of Environmental Policy

What is a policy ?

A rule or guideline that directs individual, organizational, or societal behavior

Environmental policies are developed by governments to regulate behavior of individuals, corporations, and government agencies.



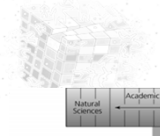
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What is an environmental policy ?

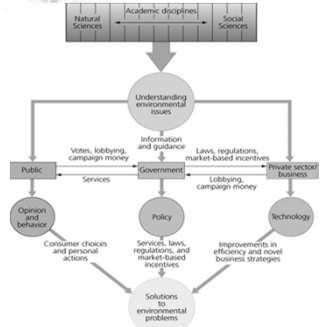
Addresses issues of equity and resource use

Prevents overexploitation of public resources (tragedy of the commons)

Ensures that some people do not harm others while benefiting from common resources




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Science informs policy directly.

Science also informs the public and the private sector, which influence policy.

Policy is one path to solving environmental problems.



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Model of Environmental Public Policy Development

Phase I

Phase II

Phase III

Key Players in Environmental Decision-Making

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How are policies designed and implemented in practice?

Bottom-up approach....

Any individual can identify a problem...

Extent of environmental damage must be understood.

Establish environmental quality objective

Begin considering various policy options available

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Once a course of action is selected

Must be legislated

Implemented by various agencies and departments

Monitored (ongoing evaluation process)

COMPLICATED AND POLITICALLY CHARGED PROCESS

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Model of environmental public policy development

General model of public policy process

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    graph TD
      A[Problem formation] --> B[Policy agenda]
      B --> C[Policy formulation]
      C --> D[Policy adoption]
      D --> E[Policy implementation]
      E --> F[Policy evaluation]
  
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- Problem formation — Initial recognition of the problem
- Policy agenda — Adding the problem to government's agenda
- Policy formulation — Evaluating options and proposing solution
- Policy adoption — Gaining support for and legislating policy
- Policy implementation — Executing the solution through a policy instrument
- Policy evaluation — Assessing the effectiveness of policy

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Public policy development process can be compressed for environmental problems into three steps

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    graph TD
      A[Phase I: Identification of the environmental problem] --> B[Phase II: Environmental decision making and C/B and/or risk analysis]
      B --> C[Phase III: Environmental policy appraisal]
  
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- Phase I: Identification of the environmental problem — Problem formation, Policy agenda
- Phase II: Environmental decision making and C/B and/or risk analysis — C/B or risk analysis -> Policy formulation, adoption, implementation
- Phase III: Environmental policy appraisal — Policy evaluation

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Phase I. Identification of the Environmental Problem

Involves initial awareness of an existing or potential environmental hazard and the process of convincing government to respond to the problem

Begins with problem formation (recognition of a public dilemma)

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Problem formation

Affects a society's segment (not an individual)

Signs of problem... sometimes obvious (E.g., medical waste washed up on a beach)

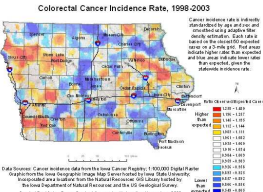
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Heavy smog



Signals can be more subtle

Incidence of cancer is higher



Colorectal Cancer Incidence Rate, 1998-2003
 Cancer incidence rates are calculated from the number of new cancer diagnoses divided by the population. Data are based on the most recent available data for each state. The incidence rate is expressed as the number of new cancer diagnoses per 100,000 people. The map is based on data from the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) program. The map is based on data from the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) program. The map is based on data from the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) program.

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Phase I. Policy Agenda

After a problem is recognized, it must be added to policy agenda

Citizens (groups) must convince government

How?

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Town meetings

Contact MPs, local government officials

Form coalition

RAISING AWARENESS

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Once politicians are aware, they must filter the issues

Scarcity... Why?

Subjective value judgments, political pressures, etc.

Once it reaches government's agenda...

Phase II.

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Phase II. Environmental decision-making and risk analysis

Assessing the magnitude of the environmental problem and developing appropriate policy response

1) Policy formulation

What is to be accomplished by government regulation?

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From broader topics (cleaner water) to more specific topics (decrease nitrates level in a specific river)

Can be extreme (complete ban or just partial goal)

This defines further steps!

Usually, middle ground is sought between status quo and an outright ban ... acceptable pollution... what is it?

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Setting targets where $MSC = MSB$ of abatement are equal!

Cost effective

Difficulties... other tools must be sometimes used

Consultation with experts (health,...)

Tools are command&control and/or market-based approaches

=> Policy proposal

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2) Policy adoption

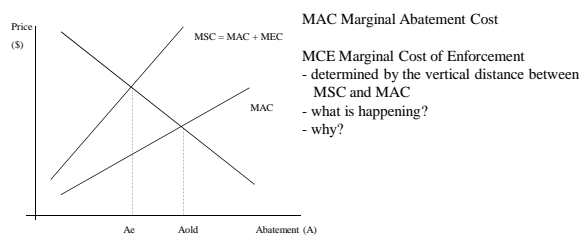
Adopting public policy into law is a difficult process

Many factors influence this process

- 1) National economic conditions
- 2) International trade implications
- 3) Politics
- 4) Public opinion

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3) Policy implementation (execution, monitoring and enforcing of environmental policy)



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Phase III. Environmental Policy Appraisal

Ongoing process of evaluating environmental policy using different criteria (environmental equity, cost effectiveness, allocative efficiency)

Policy Evaluation – appraising effectiveness of environmental initiatives => initiating revisions (minor or major)

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Cost-effectiveness = ex post C/B analysis (same principle)

Environmental equity = fairness to environmental risk burden across all segments of society or geographical regions

Efficiency = does it achieve the goals? Improvement of air in 5 most polluted cities in the CR

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Key players in public policy development

- 1) Environmentalists
- 2) Private industry
- 3) Scientists
- 4) Economists
- 5) Government and its agencies

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Environmentalists are private citizens!

70% of US population calls themselves environmentalists

Environmentalists' movement evolved from early 1800s with increasing concern over the environment

In 1900s (especially after WWII) several environmental groups have been formed to protect environment

Effectiveness ~ power, membership size, business practices

1990s power has started to decrease... 2000s has increased... why?

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Private Industry

Green technologies (law, consumers' taste,...)

Environmental management ISO 14000x...

Government and agencies

High priority to environmental issues

International organizations, national organizations, different jurisdictions

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Scientists

Human exposure to contaminants

Toxicology (Studies poisons and their effect)

Marine biologists, chemists...

Economists

Understand the impact of policies (scarce resources allocation)

Facilitate market-based policies implementation

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Sustainable Development

Policy makers have to consider BOTH environmental quality and economic prosperity

Goal of sustainable development calls for fundamental changes BOTH in production and consumption activities

Achieve prosperity in a way so that earth's natural resources are protected

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Example of such a policy

Below cost timber sales

- 1) To protect industries, on federal lands timber is sold below cost
- 2) This supports clear-cutting
- 3) Efforts to remove this policy (several decades)
- 4) If removed
 - a) Domestic -> foreign source
 - b) Substitution



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Rules and limits do not coincide (run counter to) with polluter's market incentive

In order to achieve the goal of sustainable development there has to be motivation other than avoiding penalties for non-compliance

Environmental quality and economic prosperity can be reinforcing rather than competing objectives

-> communication, environmental literacy, technologies

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What goal should be achieved?

Environmental quality ? Sustainable development?

A reduction in anthropogenic contaminant to a level that is “acceptable” to society

How clean is clean?

C/B!

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Focus on environmental quality!

In environmental economics there is a goal to reduce the harm from residuals (their release in nature)

Controlling size and toxicity of the flow of residuals

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Drawbacks

Resources use is not limited

Nature’s capacity to convert is limited

Controlling residuals AFTER they are created

Intertemporal tradeoff between generations

- Pursuit of economic development today may lead to depletion of resources
- Pursuit of environmental goal may lead to lower standard of living

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Sustainable development

Management of earth’s resources such that their long-term quality and abundance is assured for future generations

Premise of sustainable development – economic growth and environmental quality must be reconciled

Numbers

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Numbers

- 1) Global per capita income has to grow by 2+% to reduce poverty
 - 2) World population growing by 1.7% each year
- ⇒ Economic growth has to be achieved
- 3) To avoid further pollution and resource use
 - 4) Environmental impact has to decline at approximately 3.5-4% p.a.

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Environmental impact =

Income per capita x Environmental impact per unit of income x
x Population

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This is even more relevant for developing countries

Higher population -> higher demand for goods and services

⇒ Shortage

Higher population => more residuals, more resources

Solution?

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Controlling residuals not after they are created but within the process of consumption and production

This leads to various initiatives

Design of industrial ecosystems, etc.

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Moving to a closed system of materials flow

Industrial Ecosystem (A closed system of manufacturing whereby wastes of one process are reused as the inputs for another)

This applies also to surplus heat,...

Consequently, the effort is to rather than control pollution -> prevent pollution

Old saying: "An ounce of prevention is worth a pound of cure"

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Benefits of pollution prevention

- 1) Abatement cost savings
- 2) Avoidance of penalties
- 3) Image by consumers

Costs

- 1) Search costs
- 2) Administrative costs
- 3) Implementation costs

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Techniques:

Source segregation

- Hazardous and other waste kept separated

Raw materials substitution

Changes in manufacturing processes

Product substitution

- Choosing environmentally safe commodities

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Sustainable development

It is a global objective!

Benefits should accrue to all nations and segments of society

This is assured by international environmental law

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International environmental law

Part of international law system

How is it derived?

- 1) International agreements (treaties, protocols, pacts, conventions)
- 2) Common law (Case decisions, doctrines)
- 3) Judicial decisions of international bodies
- 4) Principles of environmental law
- 5) Law based on customs (customary law) E.g. we don't steal...

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International agreements (treaties, protocols, pacts, conventions)

Bilateral

Multilateral

Over 1100 international agreements on environment!

Judicial Decisions

(WTO Dispute Settlement Board, International Court of Justice, European Court of Justice)

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Case Law

Gabcikovo-Nagyramos Dam Case (1997) !

Governing law principles = 3 main principles

- Polluter pays principle
- Precautinary principle
- Sustainable development principle

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Polluter pays principle

A party responsible for causing environmental damage/harm to other parties (environment) must pay

Principle 16 of Rio Declaration

Precautinary principle

In case of lack of scientific consensus that an action may cause any harm, it is up to the party that intends to conduct such an action to proof no harm

Lack of scientific certainty cannot be used as an argument for going ahead

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Sustainable development principle

Management of earth's resources such that their long-term quality and abundance is assured for future generations

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Main international cooperative agreements

1) United Nations Conference on Environment and Development (1992)

Called Rio Summit

- a) Agenda 21 (Social and economic dimension, Major groups, Implementation – financing)
- b) Rio Declaration (Principles as guidelines to achieve environmental quality and economic development)
- c) Statement of Forest Principle (Use of forest, not legally binding, resistance from forest-owning developing countries)

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Main international cooperative agreements

2) Control trans-boundary pollution

International externality!

Formal treaties must be negotiated and agreed by all affected countries

Need for financial and technical support from wealthier countries

Montreal Protocol – Ozone layer depletion

Phasing out CFC, finding substitutes

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Main international cooperative agreements

2) Control trans-boundary pollution

UN Framework Convention on Climate Change

- Global and cooperative response to climate change
- Implement national strategy to limit GHG emissions

Further negotiations...

London Dumping Convention (LDC) Ocean dumping of certain wastes

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International Trade Agreements

How can trade coincide with environment?

Controversies

Lenient environmental standards lead to cheaper production

(unfair advantage)

Quality of imports (lax regulations on toxic chemical use, fuel efficiency and coal consumption)

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Trade makes poorer rich

Can afford costly cleanup

Benefits of bordering countries,...

Examples of trade agreements:

WTO (GATT) General agreement on tariffs and trade

NAFTA

GATT ruling (1991) United States cannot import tuna from Mexico because of dolphin kill rate

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Kyoto Protocol

The Kyoto Protocol is an international treaty which extends the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits State Parties to reduce greenhouse gas emissions, based on the premise that (a) global warming exists and (b) human-made CO₂ emissions have caused it.

Green protectionism?

Eco-imperialism?

Use of environmental standards as a trading barrier

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European Union Environmental Policies

- The European Union (EU) is considered to have the most extensive environmental laws of any international organisation
- Environmental policy of the EU is closely tied with other international and national environmental policies
- The body of EU environmental law amounts to well over 500 Directives, Regulations and Decisions
- The EU is a party to all major Multi-lateral Environmental Agreements covering a whole variety of environmental issues.

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EU Policies development

- Policy making in the EU is extremely complex !
- EU environmental policy is shaped by a variety of actors including all of the main EU institutions and lobby groups
- Member states influence it through Council of Ministers – Environmental Council
- European Commission is a key player and has exclusive right to propose new environmental policy, but it also has a responsibility to ensure the implementation of environmental rules
- European Parliament is perceived as a leader of environmental interests within the EU, it is a co-legislator with the Council but is relatively weak in the process

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EU Policies development

- EU has undertaken a particular type of policy coordination, namely the integration of environmental considerations into the operation of all policy sectors
- Main sectors are agriculture, transport and energy
- Implementation is perceived to be problematic
- This is due to EU structure itself (member states implementation)
- Need to evaluation of policies (especially lately). This is done by European Environment Agency (EEA)
- EEA provides independent information on the environment, thereby helping those involved in developing, adopting, implementing and evaluating environmental policy, as well as informing the general public

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Newest policy development

1. The 7th Environmental Action Plan
2. Waste Electrical and Electronic Equipment Updated Directive
3. Timber Regulation
4. Review of the Air Quality Strategy
5. Review of the waste package
6. Review of the Environmental Impact Assessment Directive

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The 7th Environmental Action Plan

- Covers the period 2013-2020
- Towards a resource-efficient, low-carbon economy



"Living well, within the limits of our planet"

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The 7th Environmental Action Plan

- 2020 timeframe, 2050 vision, 9 priority objectives
- Commitment by EU and its Member States
- 3 Thematic priority objectives:
 - Protecting nature and strengthening ecological resilience
 - Boosting sustainable, resource-efficient, low-carbon growth, and
 - Effectively addressing environment-related threats to health.

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The 7th Environmental Action Plan

An enabling framework with 4 further priority objectives:

- Promote better implementation of EU environment law
- Ensure that policies benefit from state of the art science
- Secure the necessary investments in support of environment and climate change policy
- Improve the way environmental concerns and requirements are reflected in other policies



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The 7th Environmental Action Plan

2 more priority objectives focus on:

- Enhancing the sustainability of EU cities
- Improving the EU's effectiveness in addressing regional and global challenges related to environment and climate change



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Updated Directive on Waste Electrical and Electronic Equipment (WEEE)

- New collection targets agreed: 85% of WEEE generated
- EU Member States will have the tools to tackle more effectively the illegal export of waste
- The exporters will have to test and provide documents on the nature of their shipments when the shipments run the risk of being waste.
- Harmonisation of national registration and reporting requirements



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Timber regulation

- Entered into force on 3 March 2013
- Objective: to counter the trade in illegal timber.
- The Regulation prohibits the placing of illegally harvested timber on the European market in an effort to tackle the problem of illegal logging across the world.
- It affects both imported and domestically produced timber and timber products
- The regulation covers an extensive range of products, from paper and pulp to solid wood and flooring



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Review of the Air Quality Strategy: Cleaner Air for all

- Why? Inadequacies in air policy governance, persistence of trans-boundary pollution, traffic emissions, need for more sector engagement
- Public concern on health – latest Eurobarometer on air shows the importance the public attaches to air quality
- Broad consultation conducted of products, from paper and pulp to solid wood and flooring



Development of Environmental Policy

Review of the Air Quality Strategy: Clean Air Package for Europe

The main components of the package are:

- A new **Clean Air Programme for Europe** with measures to ensure that existing targets are met in the short term and new air quality objectives for the period up to 2030.
- A revised **National Emission Ceilings Directive** with stricter national emission ceilings for the six main pollutants, and
- A proposal for a **new Directive to reduce pollution from medium-sized combustion installations**, such as energy plants for street blocks or large buildings and small industry installations.



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Review of the Waste Quality Strategy: Waste Package for Europe

Objective: to encourage much more recycling and update the legislation to new demands of the circular economy:

- **Simplify EU waste legislation**
- improve monitoring
- ensure optimal waste management in all Member States (new recycling targets and phase out of landfilling)
- New: to cut use of plastic bags and start to tackle marine litter



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New Environmental Impact Assessment Directive

Objective: To improve the principles of the environmental assessment of projects and to adapt the Directive to the policy, legal and technical context, which has evolved considerably

- Proposal is intended to lighten unnecessary administrative burdens
- Synergy with the Espoo and the Aarhus Conventions