

Topic 2



# Natural Resources and its evaluation

# Plan of lection

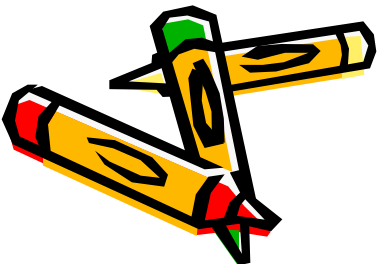
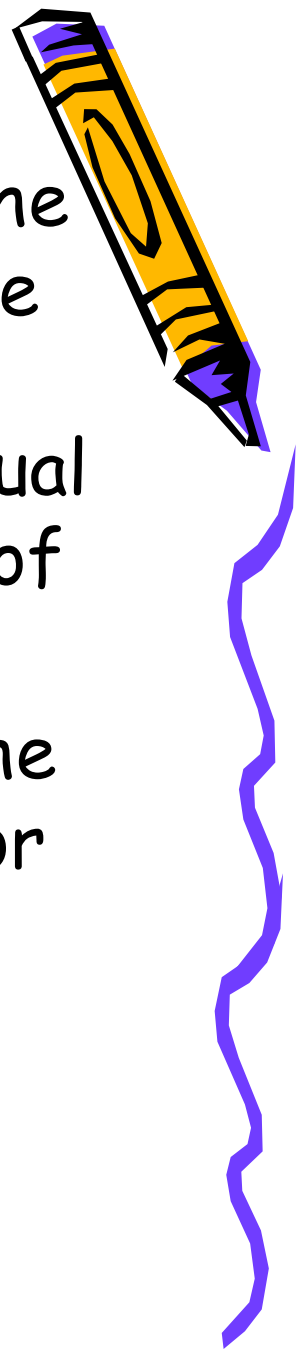
1. Natural conditions and natural resources, their classification and significance
2. The main problems of natural resource usage
3. Approaches to economic evaluation of natural resources
4. Principles for determining fees for the use of natural resources and its distribution



1

Natural resources - it is the bodies and the forces of nature that are used or can be used as means of production and consumption for the material and spiritual needs of society, improving the quality of life.

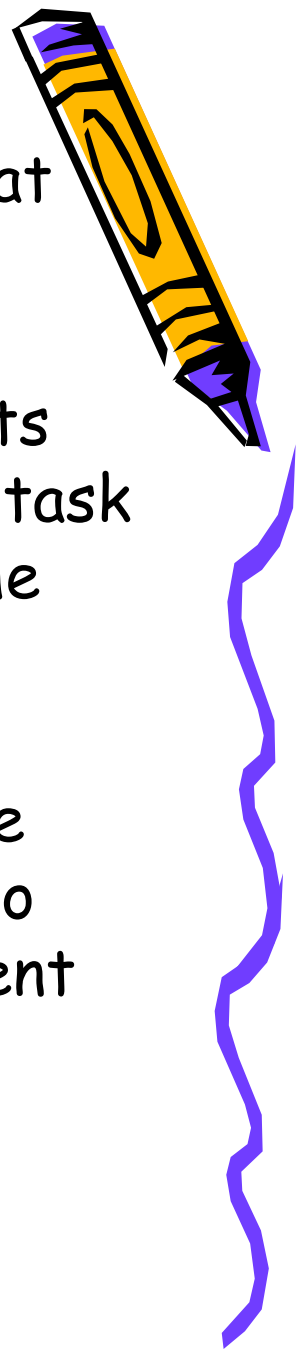
Natural conditions -it is the bodies and the forces of nature, which are essential for life and of society, but not directly involved in the manufacturing and non-manufacturing activity.



Natural resources can not be used outside and natural conditions, and this division is somewhat arbitrary.

Natural resources are the material basis of production, constantly consumed and require its full recovery in kind. Therefore, an important task of economists is drawing a balance between the economic needs of society and the natural recourses of their satisfaction.

In science there are different approaches to the classification of natural resources according to their differences and belonging to the different components and the forces of nature



Natural resources are divided:

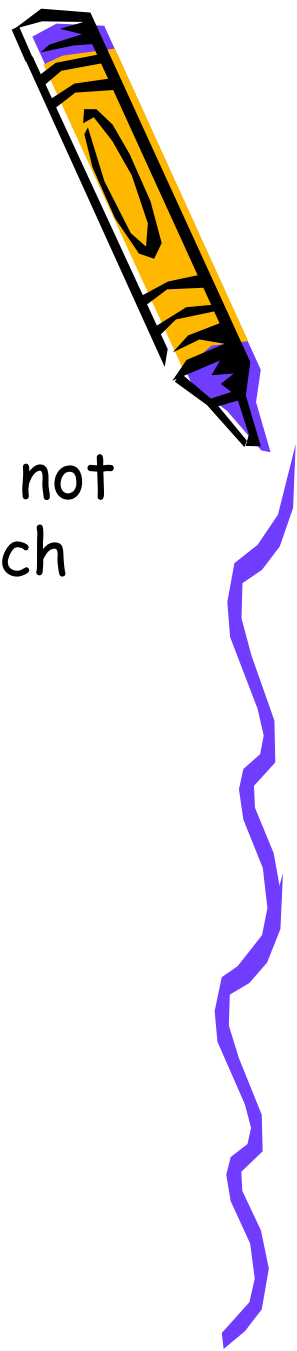
- 1) According to the territorial affiliation:  
world (global) and national
- 2) The limit of exhaustibleness

Limited (resources in their production and use is not reproducible nature or reproductive terms much larger than the speed of their use):

renewable (soil, flora and fauna)

non-renewable (mineral resources)

inexhaustible (water, air resources)



3) The possibility of renewal :

Renewable,

partially renewable, or those involved in the re-use  
(recycling materials)

not renewable (Fuels)

4) Under the direction of use :

- fuel and energy, - mineral raw materials, - food,
- territorial

5) The level of study : potential, detected, studied in detail



6) By capability of usage:

- not obtainable
- reserve,
- possible to use
- Currently used

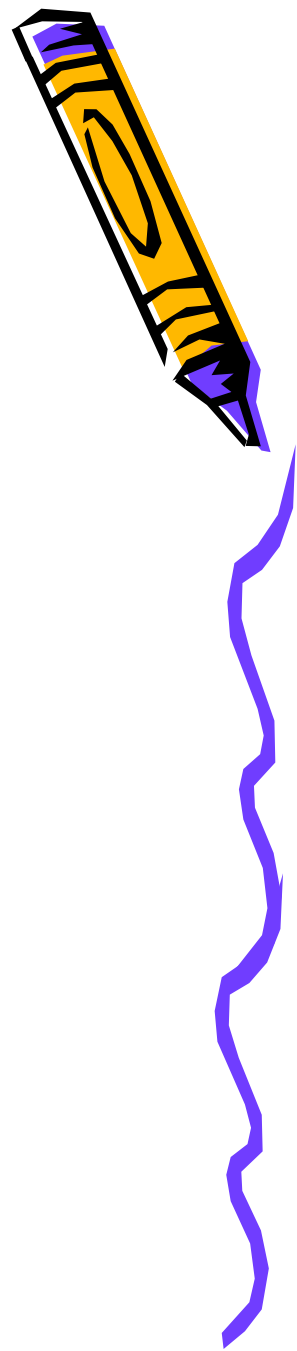
7) By the nature of the usage :

single-purpose (raw materials)

Multi-purpose (forest, water)

8) By the quality every kind of natural resources is divided by:

- Type
- class
- group



9) By the effect of experiencing of harmful effects :

- Under minor impact
- not affected

10) By possible involvement in economic circulation:

- possible to exploit the resources of the upper shell of the earth and solar
- potential - resources of space and deep sea





Today's scientific and technological progress, rapid development of productive forces leads to a significant consumption of natural resources and to the problem of acquiring and protecting global nature.

For a long time the problem of limitation of natural resources was not considered, but with the development of science and technology it has emerged as economic, technological and ideological problem.

In most countries it was formed a way of life, when their development is achieved by increasing involvement in the production of natural wealth, and that resulted in a significant depletion of natural resources and energy crisis.





After a detailed study of exhausting natural resources scientists have concluded that the main problem is not the lack of natural resources but their inefficient use and pollution.

In environmental economics, there are two most important aspects of the usage of natural resources:

- 1) Depletion of natural resources
- 2) Adding to environment unnecessary components, making its natural resources unfit for consumption



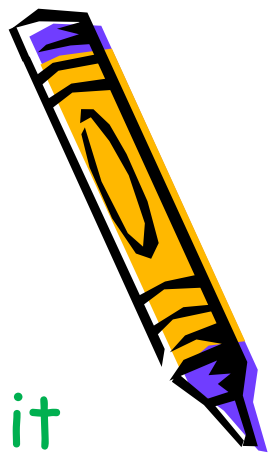
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Improving environmental management, sustainable use of natural resources in agriculture requires *economic evaluation*.

Economic valuation of natural resources - it is the monetary value of natural resources, which is determined by the efficiency of their performance.

It is necessary to consider the influence of natural factors on the efficiency of production, as well as incentives, rational use and protection of natural resources.

Issues of economic evaluation of natural resources is controversial in economics so long used various approaches to the assessment of natural resources and sizing fees for their use.



Given the diversity criterion major approaches to the economic evaluation of natural resources are classified:

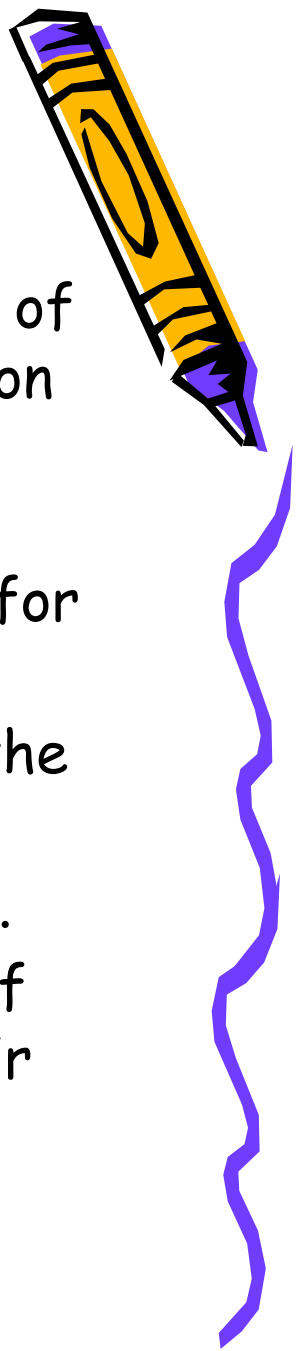
- 1) costly approach - involves evaluation of largest cost of production, development, introduction into circulation and use of natural resources

However, this approach does not encourage rational nature, for better quality and resource availability for use gets a lower estimate.

- 2) Effectiveness - using the economic assessment of the resources that provide income.

The disadvantage is that not all resources give income.

- 3) By cost of resource - based on the combined cost of the development of resources and income from their usage





4) Rental approach is considered the most objective, the best resources for getting top result for the same cost

5) Reproduction - economic evaluation in this case is a set cost of reproduction of resources in a particular area

6) Monopoly-departmental approach is kind of expensive.

The bottom line of the payments is the size of financial costs of maintenance of the specialized agencies involved in natural resource management.



The most common in business practice is rental approach to assessing natural resources. Rental approach underlies officially adopted techniques of monetary value of agricultural land and settlements.



Evaluation of water and forest resources is based on the determination of tariffs.

Ukraine is the first country in the former Soviet Union began to realize the concept of paying for nature resources in the law.

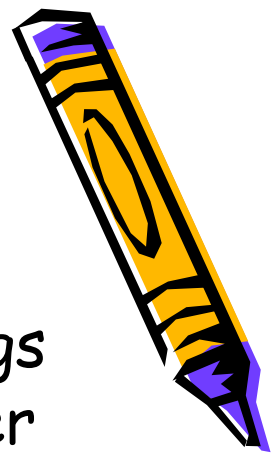
Ukraine adopted many laws that are directly related to the regulation mechanism of payment for nature resources.



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Principles for determining payments for natural resources:

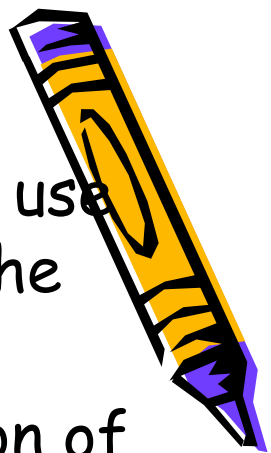
1. Fees for usage of natural resource which brings more profit for the same cost should be higher
2. Amount of expenses for natural resources should be high enough to stimulate the introduction of resource-saving and environmental friendly technologies in production
3. Rate of payments for natural resources should equal to the value of the cost of restoration and reproduction of this resource



Under current legislation of Ukraine fee for the use of natural resources is established based on the standards board and limits their use

Standard fees are determined by the distribution of natural resources, their quality and the location of possible play, accessibility, comprehensiveness, possible recycling and disposal of waste and other factors.

Limits are formed on the basis of the safety evaluation, or the maximum possible extraction of natural resources, ie, a volume that does not lead to an imbalance in the ecosystem.

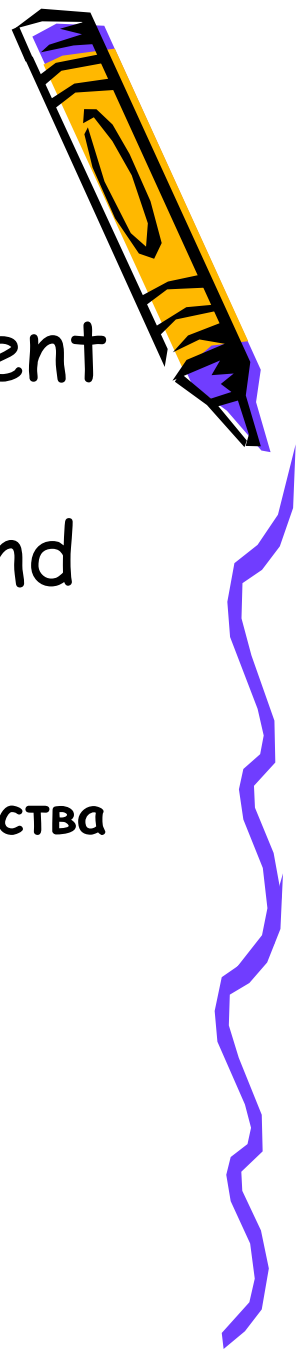




Ukraine has adopted appropriate formal instruction and methods of procedure of calculation and payment of fees for special use of mineral resources, fisheries, water, land and forest resources:

**“Методика розрахунку розмірів відшкодування збитків, заподіяних державі внаслідок порушення законодавства про охорону та раціональне використання водних ресурсів” (last changes adopted 15.06.2012)**

**<http://zakon1.rada.gov.ua/laws/show/z0767-09>**



Fees for special use of natural resources created

- For enterprises that produce and trade natural resources or use them in production activities;
- For enterprises, whole or structural unit of it do mining and transfer extracted natural resources for further processing or sale.

Among the payments for natural resources, there are two types:

- 1) for the right to use (introduced in a particular area may be in the form of tax or license fee for the use of these resources)
- 2) the restoration and protection of the natural resources (determining on the costs of maintaining to a given level of quality environment)



Payment for natural resources shall be paid in the form of special duties, taxes, rents or other forms prescribed by law.

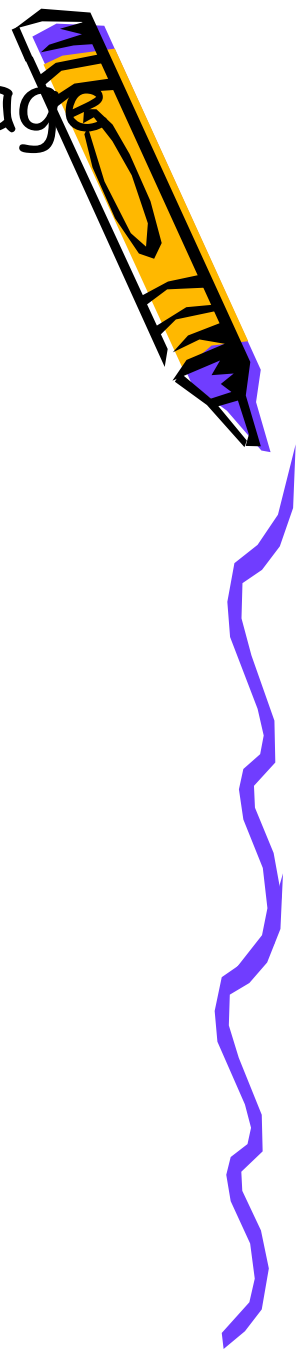
Using natural resources within established limits payments are attributable to the cost of production and charge on revenue (enterprises which pay income tax).

Fees for exceeding the limit and unsustainable use of natural resources could not be included in cost or deducted from revenue, should be covered by own enterprise funds.



# Distribution of payments for the usage of natural resources, %

Types of payments	To the state. budget	To the regional and local budgets
Payment for land use	30	70
Payment for under earth resources (below 2 meters depth)	40	60
Payment for water use	80	20
Payment for forest use	80	20
Payment for fish resources use	100	-





Thank you for attention!