

APPROACHES TO FORMATION OF ECOLOGIC-ECONOMIC CLASSIFICATION OF RENEWABLE NATURAL RESOURCES

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Resources which are used by mankind are various enough, and classification is necessary for their studying. Nowadays there are many approaches to formation of classification of natural resources. Among the most widespread classifications of natural resources it is possible to name the following:

- by origin;
- by kinds of economic use;
- by depletion feature.

Classification of natural resources from the point of view of their depletion and reproduction is of great value. Recently, classification of natural resources by basic possibility and a way of restoration which has great value for the theory and practice of economics of wildlife management has been offered.

Considering modern rates of development of production it is impossible to reach a balanced development without detailed studying of tendencies of self-reproduction of renewable resources.

According to modern classifications of natural resources, they are divided on inexhaustible and depleted. In turn, depleted resources are divided on renewable and non-renewable. Renewable natural resources are capable to self-reproduction for the periods which can be compared with terms of their consumption. But detailed classification of renewable resources which would be useful to modern economists for the account of natural rates of restoration, till now is not generated.

It is useful to classify renewable resources from time perspective which is necessary for their self-reproduction.

It is offered to enter factor of reproducibility which can be used for definition of rates of consumption of natural resources, or for an establishment of ecological restrictions of consumption.

$$k_e = \frac{T_p}{t}, \quad (1)$$

where T_p - calculated period (it is possible to accept 10 years);

t - time necessary for reproduction of natural resources.

Depending on the calculated values of factor it is possible to define natural resources as a certain kind of renewed natural resources (tab. 1).

Table 1 - Classification of renewed natural resources depending on time factor

Kind of renewed natural resources	Value k_e (At $T_p=10$ years)	Resource example
Highly renewable	$k_e \geq 10$	The superficial water resources, some kinds of animals and plants, wind power and the sun
Medium renewable	$1 \leq k_e \leq 10$	Some kinds of trees, animal
Low renewable	$0 \leq k_e \leq 1$	Underground waters

Thus, as a classification sign in the offered approach the time interval for which there is a restoration of a resource without intervention of the person acts. If use time renewable a resource exceeds time of its regeneration, the balance of consumption is broken, and the resource can be completely settled. The most effective variant will be realised, when resource use will be carried out by rates which answer rates of its reproduction.

If to define extraction norms of natural resources as h , and rates of reproduction of natural resources as y use of natural resources will be sustainable until the norm of extraction does not exceed rates of a natural increase of resources. To support sustainable inflow of resources in economy, observance of a following condition is necessary: $h \geq at$.

The offered classification of resources by a time sign will give the chance to consider time factor at consumption of resources that is important for ecologic-economic processes of their use.