

AGRICULTURAL PURPOSE LANDS

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Importance of an ecological component in system of balanced use of the lands of agricultural purpose acquires every year the increasing urgency in connection with prevalence of private economic interests of many agricultural manufacturers over public, focused on is social-ecological needs. The ecodestructive processes in agricultural use of the land resources, connected with ignoring of the reproduced processes and desire to get whenever possible the big profit on the land, have received regular and comprehensive character which without fail will lead to nation-wide ecological crisis in our country.

For last two decades in connection with excessive plowed land, insufficient entering of organic substances, mineral fertilizers, meliorative substance, pollution, etc. lands of the country regularly degrade. In Ukraine, annual losses of a ground constitute about 600 million tons. The area of degraded lands annually increases on 80 thousand in hectare. Almost every third hectare (30,7 %) is eroded, and every second - on dangerous to be degraded [3]. One of important agrochemical indicators of land fertility is humus which accumulating in a ground is an indispensable condition of restoration and fertility increase. Nevertheless, last years under modern conditions of managing annual losses of humus represent: to Polissya - 600-700 kg/hectares, in Forest-steppe - 500-600, Steppes - 500-600, as a whole across Ukraine - about 600 kg of humus on hectare [1].

The ecological situation in territories appreciably influences an agroecological condition of a ground cover and other components of agricultural landscapes. Behind modern representation the term "an ecological condition of a ground" have to understand as an integrated indicator of its ecological stability, fertility and pollution level.

The estimation of influence of a components of grounds on ecological stability of the territory, which stability depends from agricultural using of the lands, plowed and intensity of use of lands, carrying out meliorative and other technical works, territory building, is characterised by coefficient of ecological stability.

Behind I.Ritorski and E.Gojke's calculations, the coefficient of ecological stability of separate grounds represents: the built up territory and roads - 0,00; an arable lands - 0,14; wood strips - 0,38; orchards, bushes - 0,43; gardens - 0,50; meadows - 0,62; pastures - 0,68; lakes and bogs of a natural origin - 0,79; woods of a natural origin - 1,00 [2].

At a different components of grounds the coefficient of ecological stability of land-tenure territory (K_{es}) calculates behind the formula (1) [2]:

$$K_{es} = \frac{\sum K_i P_i}{\sum P_i} K_p, \quad (1)$$

Where P_i – the area of i -kind lands; K_i - coefficient of ecological stability of i -kind lands; K_r – coefficient of morphological stability of a relief (1,0 for stable territories and 0,7 for non-stable territories). For calculations it is accepted, that $K_r=1,0$.

If the received value of K_{es} is less 0,33, land-tenure is ecologically non-stable if changes from 0,34 to 0,50 concerns to stably unsustainable, if is in limits from 0,51 to 0,66 passes in a components of average stability, if exceeds 0,67 the land-tenure territory is ecologically stable.

On the basis of the this method, the coefficient of ecological stability of Ukrainian regions in 2011 (fig. 1) is calculated.

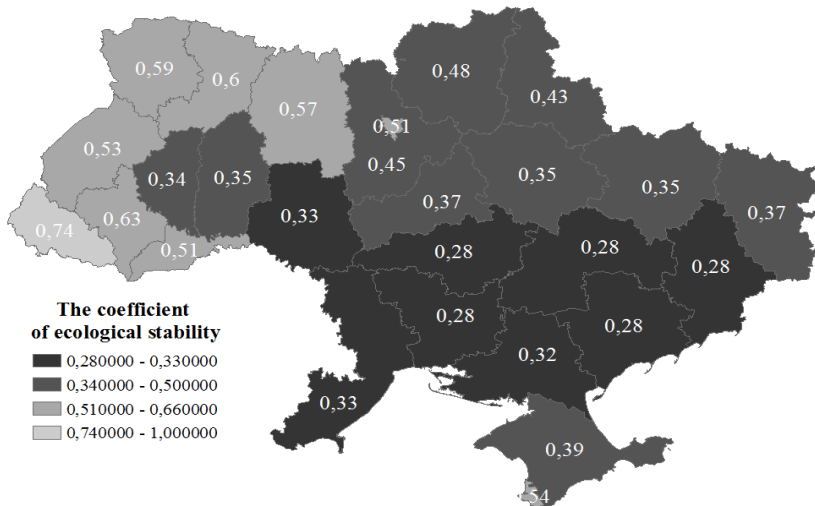


Figure 1. The calculated ecological indicators of equation of the territorial organisation behind regions in 2011.

So, the majority of regions of Ukraine concern ecologically non-stable or stably unsustainable categories of the lands and only 6 western areas are average stable. The Zakarpathian area is one ecologically stable region in Ukraine, that speaks low quantity of arable lands and the considerable area natural woods territories. The lowest level of ecological stability is observed in the central and east regions - Donetsk, Dnipropetrovsk, Zaporizhya, Kirovograd, Mikolaiv areas. On the average across Ukraine the coefficient of ecological stability constitutes 0,40, that as a whole characterises territory of our state as ecologically non-stable.

Thus, the question of protection of agricultural purpose lands in the conditions of an aggravation of an ecological situation in Ukraine should become one of the major directions of a state policy as improvement of a condition of the lands opens considerable reserves of a growth in volumes of agricultural production and provides essential improvement of ecological living conditions of the person.

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