Appraisal of the Environmental and Social Values of Woodlands

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Key words:

ABSTRACT

The paper presents non-productive functions of woodlands, a review of evaluation methods of these functions, as well as the influence of woodlands on real estates value.

Woodlands have a significant influence on: microclimate (insolation, ventilation, oxygen and ozone production, production of phytoaerosols, creation of ionic structure, etc.), hydrological (water retaining, anti-erosion activity), sanitary – hygienic conditions (air filtering, oxygen production, noise control, detoxication, etc.), human health (lowering blood pressure, soothing, anti-asthmatic, anti-tuberculous, anti-bronchitis, antiseptic, increasing immunity, stimulating, etc.), aesthetic (colours and composition).

On the five-degree scale (0-4), applied it was estimated, for example, that the highest ecological values are characteristic of spruce forests (3.2), oak woods and dry-ground forests (3.0), whereas lowest values apply to riverside carrs (2.6) [Koreleski 1999].

The most popular methods of evaluation of the non-productive properties of woodlands are the systems of:

- Declared preferences
- Costs of restitution
- Alternative costs
- Costs of preparation to recreation
- Costs carried by users.

The presented algorithm of evaluation of non-productive functions of woodlands is based on the multiplicity coefficients of environmental and social functions with regard to production functions of forests [Bosiak 1984, Koreleski 1999].

By the valuation of recreational and dwelling real estates, sanitary-hygienic, health and aesthetic functions are of special importance, however, in the case of agricultural real estates, hydrological and sanitary-hygienic properties of the forest types are intrinsic.

The assessment of non-productive values of woodlands constitutes an important element of ecodevelopment policy.

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