

ECOSYSTEM SERVICES AND ECOLOGICAL STRUCTURE OF TECHNOZEMS VEGETATION WITHIN NIKOPOL MANGANESE ORE BASIN

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The environmental characteristics of vegetation which is formed on various types of remediated soils were investigated. It is shown that the technozems vegetation represented by 91 species of vascular plants. The number of species in plant communities is dominated by the family Asteraceae, Poaceae, Fabaceae, Brassicaceae and Rosaceae. The taxonomic aspect technozems flora is a typical impression of the regional flora. In the succession of vegetation three stages of vegetation consistently and regularly replace each other, pioneer community stage, the stage of simple community and complex community stage. For therophyte projective cover share increases significantly, as if returning to a disturbed stage of succession dynamics. The nature of this phenomenon is assumed to be in the active flow pedoturbation elementary soil processes. Because of swelling and shrinkage phenomena that are characteristic of the young man made soils, forming a large network of cracks with considerable depth in the soil, are poured from the upper layers. Obviously, these technozems have a dynamic expanding capacity for wild plants. Optimal agricultural crops for cultivation in terms of agricultural land reclamation may be based on the concept of eco-trophic groups of crops. Ecological and trophic groups of cultivated plants is the equivalent trophomorph species in the wild. This makes it possible to apply ecomorphic analysis of vegetation to find optimal solutions in the agricultural land reclamation. Structure polnohor (plants ecological groups with different pollination types such as anemophily – wind pollination, entomophily – insect pollination, autogamy – self-pollination and other) indicates significant activity of consortial relationships that are formed between plants and animal populations. In general, the regional entomophilous flora share is 73%. From this indicator the figure in entomophilous technozem on gray-green clay is not very different, but in others such as technozems on loess-like loams or red-brown clays it is significantly higher. Prevalence of the entomophilous flora also indicates significant potential plant communities as the basis for beekeeping. Tight integration vegetation on reclaimed land in ecological processes emphasizes diasporophor structure. The share of dominating ballists differs little from this index in local flora. But the proportion of plants that use animals to transfer their diaspores is much higher than the regional flora. Thus, the share of endozoochor flora in the vegetation of reclaimed land is 1.49-3.23%, compared to 0.99% in the regional flora, that is 1.5–3.3 times higher. The share of epizoochor flora exceeds this figure compared with the regional flora by 1.8–6.8 times. Also open terrain promotes pervolvents, whose share in plant communities reclaimed land is 2.7–4.1 times higher compared with the regional flora. In the Raunkier's life forms structure of the vegetation cover is dominated by hemicryptophytes, somewhat inferior to them are therophytes. This structure tehnozems vegetation is characteristic for successional step bunchgrasses. Among coenomorphes are dominated by stepants (steppe species) and ruderants (ruderal species). Plant communities that have formed on technozems are identified as steppe pseudomonocoenosis with meadow and ruderal components. The technozems soil moisture mode is transitional between dryish and intermodal. The edaphotop artificial remediated ecosystems trophic mode is transitional from fertile to moderate fertile. Trophic and moisture modes are favorable for growing crops. The vegetation cover largely integrated into biocoenotic connection with the other components of the man-made ecosystems. Technozems vegetation features are a significant development in them endozoochors, epizoochors and pervolvents (tumbleweed-like plants).

Key words: Nikopol Manganese Ore Basin, Technozem Vegetation, Vegetation Cover