



The impact of ecological condition of urban soils in the economical appraisal of plots.

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In such big cities like Moscow, all the ranges of land can only be given to lease. There are three main approaches for the appraisal of lands - income approach, coast approach and direct sale comparison approach.

The Tax Code of Russian Federation from 2006 says that the lease rate directly depends on the cadastral value of the site. Therefore, the cadastral value adjustment considering the ecological situation of the environment enables us to change the lease rate for these sites.

The ignoring of the ecological situation in the land appraisal in the city turns to considerable costs for/to its government for the liquidation of the results of pollutions and for the accomplishment of the former industrial zones.

The real estate value decreases for both sites and flats in the ecologically uncomfortable areas, that leads to the considerable lose of the city's income.

There are different methods of monitoring land pollution in their economical appraisal - the use of special adjustment coefficients and creating new specific methods of appraisal of the polluted lands.

The monitoring of the ecological situation of soils must be considered in the describing of the anthropogenic impact on the territory. From that point an ecological situation of the soil is a complex of its properties that demonstrate whether it is adequate for the natural conditions of soil genesis and for the constant functioning of natural and anthropological ecosystems.

The observed east and south-east regions of Moscow are characterized by unfavorable ecology. Local areas of 5 hectares each were chosen in these two districts and sep-

arated into 10 parts. From each plot covering 1sq.m, the composite sample with the "envelope method" was taken.

According to the results of laboratory investigations the properties of soil samples in general are similar to the properties of the similar soils from the regions with the favorable ecological situation.

The analyses showed that soil acidity and composition of heavy metals are normal, whereas the amount of organic carbon and mobile phosphorus is high. The first is caused by the high content of the organic pollutants containing carbon, the second - by the excrements of pets that are rich in phosphorus. The low concentration of exchangeable potassium is probably caused by the use of anti-ice substances.

We consider that management price and cadastral value of the soils should decrease when the soil layer is polluted and degraded. We propose a special integral index which estimates the grade of decrease of the ecological quality of soil.

On the observed plots, this grade varies from the second (low) to the fourth (high). Consequently, the cadastral value adjustment varies from 82.9 rub/sq m to 566.2rub/sq m. The corrected cadastral value of the local areas (56mln rub) decreased by 19% to 43.63mln rub.

The corrected management price of the local sites changed from 69.05 to 55.93mln rub.