

EVALUATION OF WATER POLLUTION STATUS IN SIRET HYDROGRAPHICAL BASIN (SUCEAVA REGION) DUE TO AGRICULTURAL ACTIVITIES

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Abstract. The study presents data concerning the water pollution status of Siret hydrographical basin (i.e. surface and ground waters, lakes) in Suceava County area (different controlling/monitoring sections) due to agricultural productive activities, especially regarding some quality indicators (nitrogen-based nutrient concentrations) evaluated for 2008. The real water pollution state in Siret hydrographical basin (Suceava region) is estimated by the global pollution index (I_{GP}^*), and corresponds to values of 1.234 - 1.523 for ground waters, 1.330 - 1.550 for surface water, and 1.330 - 1.435 for lakes based on collected data from representative water regulator authority of Siret River hydrographical basin. These values are indicating *an aquatic environment modified by agricultural activities within admissible limits*. The results of simple risk estimation are also summarized, being found minor referring to ammonia, nitrates and nitrites. These data are recommending the necessity of continuous monitoring of water quality in the Siret River hydrographical basin, in all existing control sections, for identification of any pollution episodes, non-reported by polluters to the local environmental regulators.

Keywords: agricultural activity, nutrient quality indicators, global pollution index (I_{GP}^*), real pollution status, Siret River, Suceava County area.