

# Environmental Degradation Risks in South Caucasus on the Background of Pollution with POPs (persistent organic pollutants) and OCPs (organochlorine pesticides), their Monitoring and Strategy to Reduce Them

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The sustainability of the pollutants in the environment is very high. The pollutants have a special property promoting their penetration and sustainability in the soil. At present, there is no simple method to reduce the concentration of the polluting substances in the soil in reasonable time.

The chlorine-containing organic pesticides, which were actively used in the Soviet economy have 4 common features: high toxicity, resistance to degradation, evaporation and propagation to great distances (through air, water or migrating species) and accumulation in fatty tissues. Consequently, they are found everywhere on the earth, including the Arctic, Antarctica and remote Pacific islands. Owing to their ability to accumulate in fatty tissues, their concentration often exceeds the set standard by several thousands of times, and the higher a living organism ranks in the food chain (such as fish, birds of prey, mammals, human), the higher the risk of impact on them. One of the signs of safety of foodstuffs is an admissible level of pesticides in them. Even the products grown by using ecological farming methods may contain such chemical substances, whose use was prohibited several tens of years ago, but which have survived in water or soil. In the Southern Caucasian region especially strong pollution in soils and waters has been defined in the hot points used as areas of storage or distribution of pesticides in the past.