RESTORATION OF RIVER VALLEYS AS A METHOD OF FLOOD CONTROL
- BIOLOGICAL EFFECTS OF SOME EUROPEAN PROJECTS

Key words: flood control, flooded areas, integrated water management, river valley ecosystems, wetland restoration

Summary

Biological effects of 15 European projects carried out in river valleys are presented and discussed in the paper. Measures typical for ecological methods of flood control were applied during implementation of these projects. Net positive ecological effect was obtained (or was assumed) in all undertaken actions. Commonly acknowledged effect of the projects is the improvement of habitat conditions for avifauna in river valleys and for rheophilous fish species in the rivers themselves. Eutrophication seems to be the most important obstacle in combining nature conservation and flood control functions. There is also a threat of biological degradation of valuable meadows and pastures excluded from production and of further degradation of highly transformed areas. Therefore, maintaining traditional forms of agricultural management on parts of flooded areas is of crucial importance. Short-term negative effects associated with the engineering phase of project implementation are often described in the literature. Long-term negative ecological effects occur seldom and pertain mainly to the decrease of ecosystem's carrying capacity for some groups of organisms as a consequence of changes in the habitat structure. Broader application of ecological methods of flood control might be difficult - it requires public acceptance and an elaboration of the complex model of water management for the whole catchment basin. It seems, however, that this approach is best for many areas through combining the interests of nature protection and economy.

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