



Natural and socio-economic aspects of sustainable management of peatlands in the Notec river catchment

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River valleys have been utilized by agriculture for many centuries, with hay-making and grazing as the main land use types. Traditional management led to the development of many unique ecosystems changed in different degree and transformed to different habitats. Agriculturally management river valleys with wetland sites present not only the place for human life and agriculture but also the natural reserves required protection. Their protection and human economy in the harmony with nature is not a purely ecological problem but also an economic, sociological and educational challenge.

Taking the upper Notec river catchment as an example it is demonstrated which problems are encountered in agriculturally used river valleys with peatlands. The area of the upper Notec river valley is highly differentiated in terms of natural conditions, with a corresponding diversity of its peatlands and non-peat wetlands. The heterogeneity is further increased by the anthropogenic factor – ecosystems range from natural to highly transformed by human economy. Peatlands in the Notec river valley vary in their degree of transformation by man. Fully natural ecosystems may be encountered alongside seriously degraded ecological systems.

Economic situation in agriculture and lack of funds by farmers, farmer associations and local government units responsible for amelioration in the catchment, are the main reasons for the cessation of irrigation system maintaining and conservation as well as controlled water management. Decreased interest in utilization of water facilities is observed. A large area of grassland are abandoned due to less interest in fodder production and its market prices. Additionally land ownership and land structure (small farms, conflicts of interest in exploitation of water systems involving the area of several farms) are unfavorable as regard to proper water management in the river valley.

The adverse processes mentioned above should be counteracted through active protection of the natural and anthropogenically changed environment. Protection of the peatlands in the river valley aiming at breaking their further degradation and making possible extensive agricultural use for fodder at the same time depends to a large extent on maintaining appropriate soil moisture of peat soils and suitable water levels in the river and its tributaries as well as in canals and ditches. Proper water management in the river valley together with possible renaturalization of peatland sites is a key requirement to protect natural values of the valley ecosystems.

Different actions undertaken for peatland protection are exceedingly difficult since almost the most part of the peatlands in the river valley is in private hands and acceptance and participation of the owners in various projects – elements of active protection – is indispensable. As far as now the public awareness of the necessity of peatland preservation is rather poor. In the situation when farmers have serious problems with profitable agricultural production, they are interested in performing any actions directing protection of natural resources in their lands in a small extend. It will be hard to encourage farmers to active protection of peatlands without financial help coming from government budget, self-government budget, ecological funds and EU budget. Agro-environmental schemes and compensations will give some chance and will have some importance in sustainable use of wetlands in the Notec river valley.