
Possible solution for viable land use with environmentally sound agricultural production in the Koppány valley area, Hungary

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The research work is along the Koppány River near Somogyacsa, Törökkoppány and Somogydöröcske villages in the watershed of the Nagy (Big) Koppány stream, Hungary. The underdeveloped area is designated by local rural development community as an experimental area for agro-ecological development. A continuous ecological deterioration is the typical characteristics of the target area and similarities can be found in other rural Hungarian watersheds and Central/Eastern Europe with similar geo-physical and socio-economic characteristics.

We introduce the agricultural structure of the area and related pedological and socio-economical problems. The local rural development community (Vox Valley Development Association) coordinating the 2007-2013 rural development funds of EU in the area decided to demonstrate the possible actions which help the formation of a sustainable agro-ecological system in an area. We also introduce the possible solutions based on these funds, e.g. introduction of agro-ecological schemes, sustainable close-to-nature fishponds, animal husbandry focusing of native Hungarian breeds and plant production focusing on herbal species, shrubs and trees, all in order to keep local population and cultural heritage in place, reduce pollution in surface waters and reduce soil and nutrient loss.

Apart from the short overview of the main factors leading to the present situation this paper concentrates on proposals which will help the evolution of a sustainable eco-social system by increasing biodiversity, decreasing the further fragmentation of habitats, offering alternative income sources for local residents based on the protection and flexible handling of former and present agri-cultural heritage. The basic of this research activity is a landscape ecological approach that starts with the examination of basic natural features from geology to birds and ends with a complex package of possible solutions.