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Ecological networks: geomorphology of the fluvial corridor

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The "fluvial corridor" idea plays an important part in the strategy of territorial planning. The concept of fluvial corridor is a basic component of ecological networks and it's a test area for an exact control of environment.

The introduction of geomorphological parameters is a new approach in fluvial corridor study (as landscape ecology) and considers interaction of all elements.

A right definition of fluvial corridor, based on geomorphological elements too, could introduce to new targets of research as: the definition of fluvial corridor also in those areas without vegetation; delimitation of fluvial areas competence with a considerable antropic presence.

It is proposed the definition of fluvial corridor as "the ecosystem characterized by active fluvial morphogenesis" and an individuation of corridors types using also geomorphological concepts.

The introduction of geomorphology in the "transdisciplinar" concept of fluvial corridor also allows new applications in the plan of ecological networks and in the Land Suitability Evaluation.

The contribution of the geomorphology introduces new important aspects in the above mentioned plan of ecological networks and in the same time it is essential for the reduction of the natural hazard for people works, infrastructure and buildings.

The pediment in fact like the alluvial plains are areas vulnerable at the extreme events; the alluvial fans and the areas of connection between the slopes and plains, as the "river corridors" too, are at risk of phenomena of flooding and deep infiltration of waters.

The study of the morphologic characteristics of these zones allows to recognize the morphogenetic processes in action indicating the activity level, and suggest the criteria for the correct management of the land (forecast chronological/qualitative/quantitative, etc. of the events), for the mitigation of the effects of the events, in order to improve the civil defence activity and to contribute to the reduction of social and economic problem in the natural hazards.

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