

Flood Risk Management – Flood Prevention by Land Consolidation in the Rhine Catchment Area

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SUMMARY

Over the past years, the rising waters of the river Rhine had a major impact on the daily lives of hundreds of thousands of people living along the bank. In consequence of the great damage caused by the flooding, there is a need of sustainable water management and the implementation of new strategies in flood risk management. In areas where land is heavily used, water will have to fit into the existing use of space and be combined with housing, recreation, landscape and nature conservation.

The article describes a couple of strategies and measures for flood protection and flood management in the catchment area of the river Rhine, mostly large-scale national model projects that innovatively combine creating new space for water with housing, working environments, recreational facilities, the landscape and nature conservation areas.

In this paper, the focal point of the considerations consists in the demonstration of good examples of spatial planning and flood prevention measures for damage and risk reduction such as

- Increasing the retention capacity by relocating existing dikes (dike relocation plans)
- Implementation of regional planning and urban development, agriculture and nature conservation measures to increase water storage capacity and to slow down the run-off peaks during high water periods
- Restoring the tributaries of the Rhine
- Land consolidation as a part of flood risk management
- Examples of conversion of the land to a conforming use

The two described measures at the river Rhine lead to an ideal combination of flood protection and better spatial quality (extensive farming practices, nature and landscape conservation and recreation). Hopefully, they will set an example to the implementation of flood protection measures all over the world.