

MULTILAYER SAFETY CONCEPT ENHANCES REGIONAL CLIMATE PROOFING



Summary

The traditional approach to generate flood safety in the Netherlands is to construct physical defense structures, such as dikes or storm surge barriers. Triggered by the expected impacts of climate change, however, there is a growing attention for combined strategies which can improve the effectiveness, while reducing the costs of flood safety on regional level: the Multi Layer Safety (MLS) concept.

MLS approaches flood safety in three levels:

- 1. Flood prevention (water defense structures).*
- 2. Sustainable, water proof, spatial planning.*
- 3. Crisis management in case of flooding*

On the Dutch island of Schouwen-Duiveland, the implementation of the MLS concept has lead to new, practical options for measures to enhance regional climate adaptation.

Main Benefits

General aspects

- » Enhanced flood safety.
- » Increased awareness of evacuation routes in case of flooding.

Economic/job creation

- » Coordinated flood safety investments.
- » Avoidance of casualties and reduction of damage costs.

Innovative aspects

- » A more integrated approach to climate adaptation.
- » A better coordination of flood prevention, crisis management and infrastructure investments.

Boosters for Implementation

- » Connection of policy frameworks on EU-level, such as the Flood Directive and the White Paper on Climate Adaptation
- » More broad application, also in other regions

Barriers for Further Implementation

- » A mentality change is necessary, since the traditional approach to flood safety is being challenged.
- » Legal obligations fail to account for multi layer flood safety (No legal standards for flood safety through spatial planning and crisis management).

How to Get Over Barriers

- » Communication and awareness building.
- » Collect experience from other case studies implementing the concept.
- » Legal standards to incorporate flood safety through spatial planning and crisis management (e.g. standards to be based on casualties and damage, standards for every layer, etc).

Policy Recommendations

- » Promote the incorporation of a so-called “Climate Adaptation Pre-Assessment” in plans, programmes and policies.
- » Promote the introduction of standards which account for multi-layer safety.
- » Apply the approach in planning and policy-making of other, more vulnerable areas, and collect practical experience in learning alliance.

More Information

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