A 07 Developing Adaptive Capacity to Extreme events in the Rhine basin (ACER)

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Project website	
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Context / Social problem

For some years the Dutch government has been busy with flood protection measures in the floodplains of the main rivers. The floods in the 1990s and new insights into climate change have fuelled debate about the sustainability of current measures. Plans for emergency water retention areas and associated measures have been stalled by a lack of support among the population and local authorities.

What do we know/not know?

The debate has exposed the rapidly shrinking amount of land remaining for large-scale interventions in the Netherlands, and has revealed the country's growing dependency on what happens upstream. The Netherlands is very active in the Rhine Commission, in which all the countries in the Rhine river basin are represented. What is lacking is an integrated instrument for calculating measures to be taken throughout the whole Rhine drainage basin, for both extreme dry conditions and for flooding.

What is being studied?

Since 1997 the Dutch-German Arbeitsgruppe Hochwasser NiederRhein has been working on cross boundary flood protection policies for the transboundary area of the Rhine. This working group contains representatives from organisations like the government authorities for the Province of Gelderland and NordRhein-WestFalen and the water boards and municipalities in both countries. An important question facing the working group is how to

anticipate future climate change, and particularly how to make current policies climate-proof. The goal of the ACER project is therefore to determine climate effects in the Rhine river basin and the effectiveness of new adaptation strategies in the transboundary region of Germany and the Netherlands. Assistance will be obtained through cooperation with the EU project NEWATER.

What are the results, and who are they for?

The expected results are:

- A. An integrated model for the whole Rhine to simulate the effects of various flood protection measures over the long term (hydrology, hydrodynamics, atmosphere)
- B. The development of cross-border adaptation measures against flooding
- C. Determination of the effectiveness of these adaptation measures under different climate scenarios
- D. A focus on the regional water managers and the relation between regional water management and management for the whole Rhine basin

The Dutch-German working group, the Dutch Ministry of Transport, Public Works and Water Management, Rivierenland water board and Gelderland Provincial Council are the endusers of this project.

