Research. Transfer. Sustainability.

Strategic decision support tool for adaptation to climate change on a regional and municipal level in the Rhine area

R2K-Klim+

Global climate change and its consequences affect a wide range of spatial levels - from entire regions to individual municipalities. Local extreme weather events with its consequences, like small-scale flooding caused by heavy rainfall or heat-related stress on people, have happened more and more often in the past. At the same time, regions have also experienced climate change-related extreme events that have large-scale effects: High and low water levels on rivers not only have a regional effect, but often influence the whole river basin. Because of many different factors – like other location or economic structures – the effects of climate change-related events and depending on that the potential damage in the affected regions, are also different.

Project content

- Two geographical levels of observation: on the macro level the Rhine catchment area and on the micro level the city of Duisburg (Germany)
- Analysis of climate change-related changes about ecological, economic and social effects and its connections
- Creation of a decision support tool
- Development of a decision-making basis through creating an evaluation basis for integreated climate action for municipalities

Goal of the project

The goal of the joint project is to develop methods for the connected integral quantification of the effects of climate change at different levels. Ecological, economic and social aspects are considered. The long-term goal is the development of a suitable decision support tool for municipal actors regarding climate adaptation actions. The options for action are presented and justified in a transparent and comprehensible way.

Project overview

PROJECT TITLE

R2K-Klim+ – Strategic decision support tool for adaptation to climate change on a regional and municipal level in the Rhine area

PROJECT PERIOD

2020 – 2023

PROJECTPARTNERS

Research Institute for Ecosystem Analysis and Assessment at RWTH Aachen University (gaiac e.V.); geomer GmbH; Engineering company Dr. Siekmann & Partner mbH; Rhine-Ruhr Institute for social research and policy advice (RISP e.V.) at the University Duisburg-Essen; City of Duisburg

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STATUS

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