



DHI MARKET AREA: CLIMATE CHANGE

URBAN WATER AND CLIMATE CHANGE

Turning urban water challenges into opportunities

Climate change impacts affect cities significantly — and will continue to do so in the future. These impacts have serious potential consequences for human health, livelihoods, and assets, especially for the urban poor, informal settlements, and other vulnerable groups. Climate change impacts range from an increase in extreme weather events and flooding to hotter temperatures and public health concerns. Cities in low-elevation coastal zones for instance, face the combined threat of sea-level rise and storm surges. The specific impacts on each city will depend on the actual changes in climate experienced (for example, higher temperatures or increased rainfall), which will vary from place to place.

- THE CHALLENGES**
- Establishing local predictions for changes in weather patterns
 - Setting and enabling service and acceptance levels
 - Identifying risk areas and safe zones
 - Protecting high-value assets
 - Developing emergency plans for extreme events

OUR APPROACH At DHI, we apply a holistic approach when addressing urban water challenges. To fully understand the complex water picture, we consider all aspects when recommending future solutions. Rainfall, groundwater, surface water and seawater influence each other and need to be considered in the relevant context. Moreover, health risks in connection with flooding or contamination are equally important and a part of our Integrated Urban Water Management (IUWM) approach. We partner with primary stakeholders in order to develop future solutions to cope with the challenges of climate change impacts on urban water.

- OUR SOLUTIONS**
- Downscaling of climate change projections from regional to local conditions
 - Provision of support to political and community processes in value assessments
 - Risk simulations and identification of adaptation measures using advanced hydraulic and water quality models
 - Early-warning of health risk situations
 - Transfer of highly specialised competencies to operational staff

THE ULTIMATE GOAL HELPING URBAN AREAS ADAPT TO CLIMATE CHANGE IMPACTS EFFECTIVELY

Urban climate change risks, vulnerabilities, and impacts are increasing across the world in urban centres of **all sizes, economic conditions and site characteristics**

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OUR TOOLS AND SERVICES

We have a wide variety of tools and services to help urban areas adapt effectively to the inevitable impacts of climate change. These include:

- urban flood risk analyses (MIKE FLOOD — part of MIKE Powered by DHI software suite)
- early-warning systems — Decision Support Systems (DSS)
- high resolution rainfall radar
- urban climate change adaption
- urban flood risk analyses
- guidelines for risk assessments

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