



DHI MARKET AREA: CLIMATE CHANGE

## HEALTH RISKS AND SAFETY PLANNING

Ensuring safe and clean water, assuring food safety

Safe and clean drinking and recreational water are basic factors determining the level of public health – and thereby the wellbeing of people from all strata of society. In developed countries, public water supply and recreational waters are generally safe and reliable. However, outbreaks of water-borne diseases are still quite commonplace and of concern. In less developed countries, public water supply is not only intermittent in many places, but also of poor quality.

The expanding population worldwide and the rapidly changing climate are further increasing the pressure on public water supply systems. Water safety faces greater threats given the changing climate and consequent flood-related inflow of toxic micro-organisms and substances. In order to ensure that climate change impacts do not cause water- and food-related diseases in the public, it's becoming increasingly necessary for authorities to take adaptive measures.

- THE CHALLENGES**
- Continuous provision of safe and clean drinking water
  - Dealing with greater inflow of toxic micro-organisms and substances
  - Meeting stricter legal requirements with respect to food and water safety
  - Increasing public awareness about the impacts of climate change on water quality

**OUR APPROACH** At DHI, we focus on addressing health risks across the entire chain from source to consumer. In so doing, we help to effectively ensure consistent provision of safe drinking water and food. We adopt the same approach for recreational waters, in order to protect water bodies from being negatively impacted by the changing climate and to avoid public health outbreaks. We also focus on educating authorities and the public about safe water and higher expectations regarding the same.

- OUR SOLUTIONS**
- Comprehensive Water Safety Planning (WSP)
  - Consultancy and laboratory services related to all aspects of water and food safety
  - Assessing and evaluating risks posed by toxic micro-organisms and substances to drinking and recreational water supplies
  - Increasing awareness of authorities and various organisations regarding the importance of water and food safety and impacts of climate change on water and food quality
  - Educating the public about clean drinking water and food safety

**THE ULTIMATE GOAL** KEEPING WATER AND WATER USE SAFE, DESPITE CLIMATE CHANGE IMPACTS

**3.4 million people** die each year from water-related diseases

Water.org

## OUR TOOLS AND SERVICES

We offer a wide variety of tools and services to ensure that health risks caused by climate change impacts on food and water are taken care of. These include:

- implementation of WSPs
- identification of hazards and hazardous events
- evaluation of microbial barriers by advanced Quantitative Microbial Risk Assessment (QMRA)
- assessment of disinfection practices
- identification of suitable sensors (including on-line sensors) for operational monitoring
- implementation of data management systems for storage, handling and documentation
- hydraulic monitoring and water quality modelling
- analysis and reduction of Non-Revenue Water (NRW)
- external audits for WSP implementation verification
- environmental management and sustainability monitoring
- Bathing Water Forecast Systems, incorporating our dynamic and customised modelling solutions
- capacity building and training by THE ACADEMY by DHI

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