



National Institute for Public Health
and the Environment
Ministry of Health, Welfare and Sport

Water and sanitation in Dutch national adaptation plans

*Strategic roundtable on increasing
resilience to climate change*

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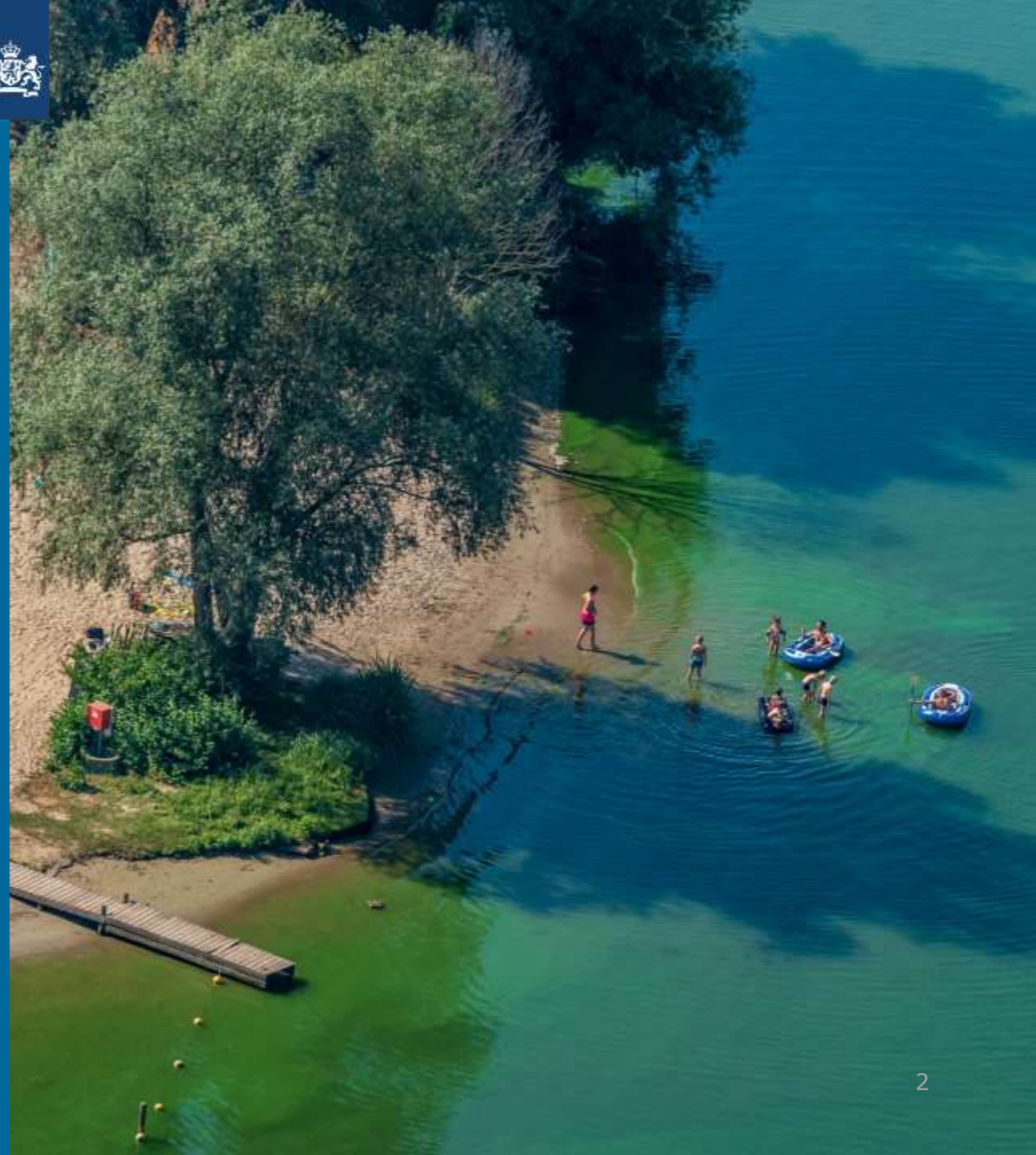
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Climate change in the Netherlands

- › Main drivers of climate change impacts
 - Warmer
 - Drier (summers)
 - Wetter
 - Rising sea level
- › Water (quantity) as a focal point
- › Many adaptation efforts ongoing





Climate change adaptation through **two complementary national programs**

DELTAPROGRAM

- > Flood protection
- > Freshwater management
- > Climate-proof spatial planning

NATIONAL ADAPTATION STRATEGY

- > Defines main drivers and impacts of climate change in the Netherlands
- > General guidelines
- > Prioritizes impacts not covered by the Deltaprogram

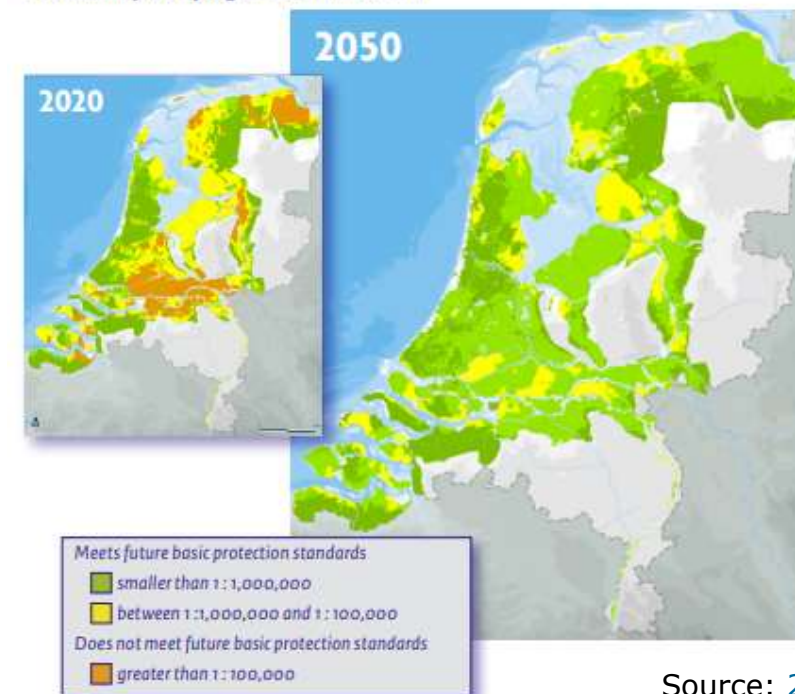


Deltaprogram – flood protection

- › Reducing probability and impact of flooding (2050)
 - Probability of dying due to coastal or river flooding <1 in 100,000/year
 - Considerations for building in flood prone areas (climate-proof spatial planning)
- › *Last major flood (Limburg 2021) did not affect drinking water quality but did cause minor supply issues due to broken DW pumping station and increased use for cleaning (1).*

Protection in 2050

Probability of dying as result of flood



Source: [2](#)



Deltaprogram – freshwater management

- › Ensure sufficient freshwater supply for vital functions (including drinking water production) during droughts (2050)
 - Regional challenges, e.g. water retention in the east/south, saltwater infiltration in the west
 - Urgent issue – all provinces may face seasonal drinking water shortages by 2030 without additional measures ([3](#))
- › *During very dry periods regional water authorities will advise on limiting non-essential drinking water use, and impose restrictions on agricultural surface water use to ensure sufficient supply for vital functions ([4](#))*



Deltaprogram – **climate-proof spatial planning**

- › All municipalities have mapped their vulnerability to heat, drought, and flooding (climate stress tests) ([5](#))
 - Ambitions to include water quality in future stress tests
- › Cross-sectoral research programs to support development and implementation of adaptation measures
- › Increased attention for water quality and effect of adaptation measures ([6](#))
 - Proactive evaluation of potential effect of adaptation measures ([7](#))



National adaptation strategy

- › Supports all adaptation efforts ([8](#))
- › Infectious diseases with focus on waterborne disease (recreation) identified as urgent climate risk ([9](#))
- › Current priorities
 - Action on urgent climate risks
 - Tying in with other transitions and societal challenges
 - Investing in long-term knowledge and monitoring system
- › Update due in 2026



Conclusions and lessons learned

- › Climate change already leads to urgent challenges in the Dutch water sector
- › Specific targets relating to water in the Deltaprogram
- › National adaptation strategy guides all adaptation efforts
- › New paradigm for adaptation: soil and water systems are leading
- › Dutch focus on water quantity but increasing attention for quality
- › Connecting climate and water policies is an ongoing challenge





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WHO CC Risk Assessment of Pathogens in
Food and Water,





References

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