

IHE Delft Institute for Water Education is the largest international graduate education institute in the field of water. The institute confers fully accredited MSc degrees and PhDs.

Since 1957 the Institute has provided education to more than 23,000 water professionals from over 190 countries, the vast majority from the developing world.

115 PhD fellows enrolled in water-related research. The Institute carries out numerous research and capacity development projects throughout the world.

# Core activities

## Education & Training

IHE Delft offers a wide range of flexible, high quality, specialized educational programmes to respond to the needs of diverse clients from the water sector. These include MSc and PhD programmes, along with online and short courses.

## Research & Innovation

With over 122 academic staff and 115 PhD fellows active in water-related, problem-focused and solution oriented research on development issues, IHE Delft has a vibrant multicultural and multidisciplinary research atmosphere.

## Institutional Strengthening

IHE Delft strives to strengthen the programmes of universities and research institutes as well as the knowledge and capacity base of ministries and other water sector organizations.

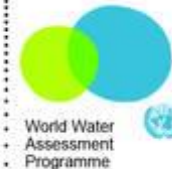
## Capacity development



# IHE Delft and the UN

IHE Delft is an active member of both the UN-Water and the UNESCO Water family. IHE Delft is the only education institute within UNESCO focused on water.

The Institute works closely with other UNESCO water related organizations, particularly International Hydrological Programme (IHP) and the World Water Assessment Programme (WWAP). We also work with the World Meteorological Organization (WMO), the Food and Agriculture Organization (FAO), UNICEF and UNFCCC amongst others.



# Vision

IHE Delft Institute for Water Education envisions a world free of poverty and injustice, in which people manage their water and environmental resources sustainably and equitably.



*A girl carrying drinking water from a handpump located in the village in tribal regions of Melghat region of Maharashtra.*

# Mission and Ambition

## Mission

IHE Delft works in partnership to strengthen capacity in the water sector to achieve global sustainable development.

## Ambition

Through our overarching work on capacity development, IHE Delft aims to make a tangible contribution to achieving all Sustainable Development Goals in which water is key.



# MSc in Water and Sustainable Development

| THEMATIC TRACK                              | DISCIPLINARY PROFILE  |
|---|---|
| <b>Water, Food and Energy</b>               | engineering<br>governance and management<br>environment<br>digital innovation                     |
| <b>Water Hazards, Risks and Climate</b>     | engineering and hydrology<br>governance and management<br>digital innovation and hydroinformatics |
| <b>Water and Health</b>                     | engineering<br>governance and management<br>sanitation  |
| <b>Water Resources and Ecosystem Health</b> | engineering and hydrology<br>governance and management<br>environment<br>digital innovation       |

## MSc in Water and Sustainable Development

### Water Hazards, Risks and Climate



| MODULE 2   | MODULE 3 OPTIONS   | MODULE 4 OPTIONS  | MODULE 5 OPTIONS   | MODULE 6 OPTIONS  | MODULE 7 OPTIONS  |
|--|--|---|--|---|---|
| Introduction to Water Hazards, Risks and Climate | Waves, tides and sediment budget<br>Drainage and sewerage<br>Hydrology and ecosystems<br>Rethinking water<br>Modelling, programming and computational hydraulics | Coastal processes and morphology<br>Analysis of climatic and hydrological variability and change<br>River basin modelling<br>Organizing water | Modelling coastal hazards<br>Geoprocessing in urban water<br>Drought management<br>Water asset and cooperation (Ind. law)<br>Finance and implementation<br>Artificial intelligence for water systems | Design of risk reduction measures in coastal zones<br>Sustainable urban drainage systems<br>Flood risk management<br>Water conflict management and tools for water diplomacy<br>Policy analysis | Climate change adaptation in lowland areas<br>Strategic planning and design<br>Urban ecosystems in a changing climate<br>Decision support systems in water domain |

■ engineering and hydrology  
■ governance and management  
■ environment  
■ digital innovation and hydroinformatics

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[www.un-the.org/researchmaster](http://www.un-the.org/researchmaster)

## Drought Management Module

# IHE Delft and Drought Management

| Risk & Hazard Assessment  | Monitoring & Early Warning                         | Preparedness & Mitigation  | Response & Recovery   | Benefits of action & cost of inaction  |
|---|--|--|---|--|
| Education, Research, and capacity building on drought risk assessment | Drought indicator development                      | Understanding and projections of impacts of climate change on water resources systems                            | Nature-based solutions; Restoration of rivers, and aquatic ecosystems                               | Feedbacks between adaptation options and the hydrological system, including insight into maladaptation |
| Guidance and method development to support drought risk assessment    | Research and innovation in climate services        | Adaptation options to increase resilience of vulnerable communities, e.g. through access to alluvial groundwater | Disaster Risk and humanitarian Response including water supply and sanitation.                      | Value of ecosystems services   |
| Research on water, peace and security                                 | Citizen Science and Citizen observatories          | Drought Management Planning Water allocation and operation of water resource systems                             | Governance and institutional aspects of disaster risk reduction, including in transboundary basins. |  |
|   | Water accounting and water productivity monitoring | Participatory research on community perceptions of drought and mitigation options                                |   |  |



Contact

About I-CISK Living Labs Partners News & Events Resources Outcomes

*Innovating Climate Services  
through Integrating  
Scientific and Local Knowledge*

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## About I-CISK

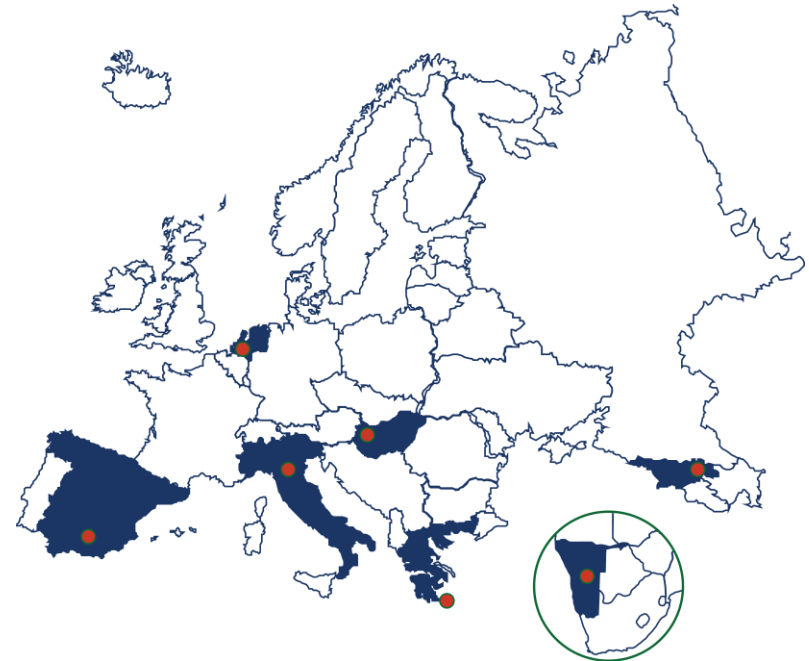
Climate change is one of the defining issues of the 21st century, with the climate becoming more variable and severe weather events such as floods, droughts and extreme heat occurring more frequently. Adaptation to

# I-CISK:

- Four year H2020 research initiative established within the EU-Green Deal call
- Partnership with 13 Research Institutes, NGOs & SME's



- Action-Research approach from seven Living Labs across Europe & Namibia
- Multiple sectors & climate settings
- Agriculture/Nature/Shipping/Tourism/Health/Forestry/Urban Planning/Hydropower/Humanitarian
- Co-creation through working with multi-actor platforms established in each Living Lab



Please visit <https://icisk.eu>