



# Joint Master Programme on Groundwater and Global Change

## Impacts and Adaptation



**GroundwatCh**  
Groundwater & Global Change

The Joint Master Programme in Groundwater and Global Change – Impacts and Adaptation (GroundwatCh) seeks to offer a distinctive curriculum in the field of groundwater and climate sciences, within a framework of human pressures, around the following thematic areas:

1. General Hydrogeology;
2. Groundwater Data Collection, Interpretation and Modelling;
3. Climate Processes and Modelling;
4. Integrated River Basin and Water Resource Management;
5. Groundwater and Environmental Impacts;
6. Groundwater, Society and Policies;
7. Groundwater, Climate and Global Change Impacts and Adaptation.

With this curriculum GroundwatCh aims to provide knowledge, insight and skills in the field of groundwater hydrology and its feedback mechanisms with climate and human activities. This will allow people who have completed the programme to function as independent professionals in academic, public and private sectors dealing with groundwater as a fundamental source of freshwater in adaptation to climate and global change.

**Start date**  
September each year

**Locations**  
• Lisbon (Portugal)  
• Delft (Netherlands)  
• Dresden (Germany)

**Duration**  
2 years

**Application deadline**  
31 May of each year  
(if you do not need  
EU visa, deadline is  
30 June)

**Erasmus Mundus  
Scholarship  
deadlines**  
15 January of each  
year (Partner country  
applicants);  
15 February of each  
year (Programme  
country applicants)

The students will start the academic year in September at Instituto Superior Técnico in Lisbon, where during the first semester they receive courses addressing core competences in Thematic Areas 1-6, totalling 30 ECTS.

In March, the students will move to IHE Delft in the Netherlands, where they acquire 30 ECTS in the second semester, taking advanced courses within Thematic Areas 2 and 4-7. Following conclusion of the second semester and the summer break, the students then move to the Technical University of Dresden, where they study during the third semester, obtaining advanced training in Thematic Areas 3 and 7, through compulsory teaching modules in climate modelling and groundwater-soil-land-climate feedback mechanisms, as well as a study project. Here the students will also have

a number of optional modules from which they can choose two, specialising in a certain direction, depending on their thesis subject.

In March of the second academic year the students will start their thesis study. Students can conduct dissertation research at any private or public institution, under promotership of a lecturer of a consortium partner institution. Lecturers of both the consortium and associated partner institutions can act as co-promoters. Balance for MSc dissertation projects amongst partner institutions will be achieved by means of promoting the establishment of joint projects between different members of the consortium. A number of short courses will be provided, and there are possibilities for internships.

#### **Admission requirements**

- Proof that the applicant has successfully accomplished a first degree of higher education equivalent to a B.Sc. degree (equivalent to 180 credit points according to the European Credit Transfer System (ECTS)) with a good final mark in one of the following subjects: hydraulic, civil, environmental or agricultural engineering, geosciences, environmental sciences, climate sciences, geography, geology, or any other similar subject.
- Evidence of qualification in one of the internationally-recognised English language tests.
- Basic academic knowledge of mathematics, physics and chemistry, proven by the list of subjects taken during the B.Sc. or equivalent course, is strongly preferred.

As GroundwatCh graduate you can be employed by regional or country-based water authorities and related governmental agencies, environment and water institutes and geological surveys, as well as water supply companies and international (non-governmental) organisations (e.g. UNEP, WMO, WRI, IIED, WWF). You will also have the opportunity to follow an academic career in this relevant field.

#### **Fellowships**

From 2019 onwards Erasmus Mundus Scholarships will be available. Many national fellowship programmes are also eligible for partial or full funding of tuition fee and living costs.

**For more information:**  
[www.groundwatermaster.eu](http://www.groundwatermaster.eu)



With the support of the  
Erasmus+ Programme  
of the European Union