

NVAO  THE NETHERLANDS

PEER REVIEW NEW PROGRAMME  
ACADEMIC MASTER  
WATER AND SUSTAINABLE  
DEVELOPMENT  
IHE Delft

SUMMARY REPORT  
30 June 2021



## 1 Peer Review

The quality of a new programme is assessed by means of peer review. A panel of independent peers including a student reviews the plans during a site visit to the institution. A discussion amongst peer experts forms the basis for the panel's final judgement and the advisory report. The focus is on the curriculum and intended learning outcomes, the teaching and learning environment, and student assessment.

The Accreditation Organisation of the Netherlands and Flanders (NVAO) takes a formal decision on the quality of the new programme proposed based on the outcome of the peer review. This decision can be positive, conditionally positive or negative. Following a positive NVAO decision with or without conditions the institution can proceed to offer the new programme. Upon completion of the programme graduates are entitled to receive a legally accredited degree.

This summary report contains the main outcomes of the peer review. A full report with more details including the panel's findings and analysis is also available. NVAO bases an accreditation decision on the full report.

Both the full and summary reports of peer reviews are published on NVAO's website [www.nvao.net](http://www.nvao.net), once accepted officially. There you can also find more information on NVAO and peer reviews of other new programmes.

Because of COVID-19 temporary measures apply for this peer review.

## 2 Panel

Peer experts

1. Prof. dr. Isa Baud (*chair*), University of Amsterdam, Faculty of Social and Behavioural Sciences;
2. Prof. dr. Jaap Kwadijk, University of Twente, Faculty of Engineering Technology;
3. Dr. Karin Rebel, University of Utrecht, Faculty of Geosciences, Senior Fellow Center for Academic Teaching;
4. Aldo Zamarroni Peralta (*student*), Wageningen University, MSc student International Land and Water Management.

Assisting staff

- Dr. Marianne van der Weiden, secretary
- Drs. Henri Ponds, NVAO policy advisor and process coordinator

Site visit

19-20 April 2021 (online) and 1 June 2021 (joint programmes, online)

### 3 Outcome

The NVAO approved panel has reached a positive conclusion regarding the quality of the academic Master Water and Sustainable Development offered by IHE Delft. The 68 EC master programme offers a fulltime curriculum in Delft.

The Master programme Water and Sustainable Development targets an international group of early- and mid-career professionals in the broad field of water (from drinking water and sanitation to ecosystems and ecological hazards) and provides them with a well-designed interdisciplinary master programme to deepen and broaden their knowledge and skills. The programme offers four tracks, within which students can choose a specific profile (engineering, governance, environment or digital innovation). Based on their background and their career ambitions, students define their study path with the help of a coach and select modules in a track and a thesis topic. Between the modules, the programme offers so-called mixed weeks, which entail not only exams, but are utilized mainly for students to reflect with their coach on their personal learning goals as part of a student portfolio and to learn generic academic skills such as academic writing, group dynamics and presenting. The skills learned are then applied in the following module. As soon as students are admitted to the programme they are assigned a coach who helps them to select an appropriate set of modules and advises them to study online preparatory courses if any knowledge gaps exist. The system of coaches and the use of portfolios are strong instruments to guide students in their individualized study paths and should be fully implemented, based on the experiences of staff members who have learned to use them well. The staff members are well-qualified and have a wide experience across the international water sector, in both academe and professional practice. The didactic toolkit supports them in designing their courses and assessments in a unified way across the institute. Most modules have already made good use of this toolkit and the others are expected to follow. The Exam Board actively monitors the qualifications of examiners and the quality of the assessment system. The use of external examiners ensures that theses reach levels accepted by the discipline and professional field.

All in all, the panel concludes that the master programme Water and Sustainable Development is a student-centred in-depth programme with strong quality assurance mechanisms for teaching and assessment.

IHE offers three joint programmes: (1) Limnology and Wetland Management, a joint degree programme offered with the University of Natural Resources and Life Sciences (BOKU), Austria, and Egerton University, Kenya; (2) Water Cooperation and Diplomacy, a multiple degree programme offered with the University for Peace (UPeace), Costa Rica, and Oregon State University (OSU), USA; and (3) Water and Hydropower Engineering, a multiple degree programme offered with the University of Kuala Lumpur (UniKL), Malaysia. The panel has studied written documentation, such as the memorandums of agreement and course descriptions, and held online discussions with the three partnerships to ascertain the level of cooperation and quality assurance. The outcome of this assessment is positive: each joint programme offers a combination of topics and disciplines that cannot be offered by one institute only. The panel feels this is a convincing argument for the joint programmes per se, and also concludes that the programmes are able to provide this added value in practice.

### 4 Commendations

The programme is commended for the following features of good practice.

1. Interdisciplinarity – The programme provides students with knowledge in the wide domain of sustainable water management and the skills to work on projects in interdisciplinary and multi-cultural teams.
2. Student-centred programme – With the help of a coach students design their own study path based on their background knowledge and their career ambitions. Within one of the four tracks they choose a profile and select a number of modules and a thesis topic.
3. Mixed weeks – Between the modules, there is time for students to reflect with the coach on their study progress and to learn useful academic skills that they can apply and practice in the following module.
4. Didactic toolkit – Teachers use a set of didactic guidelines to design their modules and assessments. This increases the quality, alignment and coherence of the curriculum.
5. Staff – The teachers have a strong international expertise, which is based on both theoretical knowledge and professional practice, coupled with research on applications and innovative knowledge tools. This makes them strong educators in the field of water management.

## 5 Recommendations

For further improvement to the programme, the panel recommends a number of follow-up actions.

1. Student guidance – Make sure that the available mechanisms (coaches and portfolio) to ensure that students make informed choices when designing their individual study paths are fully implemented and meet student expectations.
2. Benchmark – Use programmes with a strong international student population and interdisciplinary programmes at other universities (not necessarily oriented towards water specifically) to compare their approach and experiences on generic educational and teaching issues with the IHE programme.
3. Preparatory courses – Urge students to complete the preparatory courses before they start the programme if there are knowledge gaps, and utilize the new role of coaches to emphasise the importance of this.
4. Didactic toolkit – Complete the process of utilising the didactic toolkit in the design of modules and assessment across the programme for complete alignment, and support staff by training them in its use.
5. Assessment committee – Establish an assessment committee under the responsibility of the Exam Board to help the Exam Board to check the quality of module assessments.

## 6 What comes next?

NVAO grants initial accreditation to a new programme on the basis of a panel's full report. The decision is valid for a maximum of six years. For conditional accreditation other regulations apply. Upon accreditation the new programme will follow the NVAO review procedures for existing programmes. NVAO publishes the accreditation decision together with the full report and this summary report.<sup>1</sup>

Each institution has a system of quality assurance in place ensuring continuous follow-up actions and periodic peer-review activities. Peer reviews help the institution to improve the quality of its programmes. The progress made since the last review is therefore taken into consideration when preparing for the next review. The follow-up activities are also part of the following peer-review report. For more information, visit the institution's website.<sup>2</sup>

## 7 Summary in Dutch

Het panel oordeelt positief over de kwaliteit van de wo-master Water and Sustainable Development van IHE Delft. Dit is de uitkomst van de kwaliteitstoets uitgevoerd door een panel van *peers* op verzoek van de Nederlands-Vlaamse Accreditatieorganisatie (NVAO). Hiervoor heeft het panel gesprekken gevoerd met de opleiding op 19 en 20 april 2021.

De master biedt jonge professionals in de internationale watersector, vooral uit Azië, Afrika en Latijns-Amerika, een interdisciplinaire opleiding (68 EC) waardoor ze watergerelateerde problemen (van drinkwater tot ecosystemen) beter kunnen aanpakken. Het programma is sterk studentgericht: studenten bepalen hun eigen studietraject door modules en een scriptieonderwerp te kiezen die passen bij hun achtergrond en hun ambities, en worden daarbij geholpen door een coach. Bij eventuele hiaten in voorkennis krijgen studenten het advies een of meer online voorbereidende cursussen te volgen. Naast de theoretische modules zijn er speciale weken voor het aanleren van vaardigheden en voor reflectie op de studievoortgang. De docenten hebben veel theoretische kennis en praktische ervaring in internationale (onderzoeks)projecten, waardoor ze de studenten goed kunnen begeleiden. IHE Delft ondersteunt de docenten bij het ontwikkelen van cursussen en toetsen met een uitstekende 'gereedschapskist'. De examencommissie bewaakt de kwaliteit van het toetsysteem en externe examinatoren houden zicht op het masterniveau van de scripties.

IHE biedt ook gezamenlijke programma's aan met internationale partners: (1) Limnology and Wetland Management, in samenwerking met de University of Natural Resources and Life Sciences (BOKU), Oostenrijk, en Egerton University, Kenya; (2) Water Cooperation and Diplomacy, samen met de University for Peace, Costa Rica, en Oregon State University, VS; en (3) Water and Hydropower Engineering, samen met de University of Kuala Lumpur, Maleisië. Deze programma's betreffen maatschappelijk relevante thema's die breder zijn dan het aanbod van één instituut en zijn daardoor een meerwaarde in het aanbod van IHE.

Meer informatie over de NVAO-werkwijze en de toetsing van nieuwe opleidingen is te vinden op [www.nvao.net](http://www.nvao.net). Voor informatie over IHE Delft verwijzen we naar de website van de instelling.<sup>3</sup> Als gevolg van de beperkende omstandigheden door COVID-19 geldt voor deze kwaliteitstoets een tijdelijke procedure.

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<sup>1</sup> <https://www.nvao.net/nl/besluiten>

<sup>2</sup> <https://www.un-ihe.org/>

<sup>3</sup> <https://www.un-ihe.org/>

