

# CURRICULUM VITAE

## *Personal Details*

**Nynke Hofstra**

Assistant Professor, Environmental Systems Analysis Group, Wageningen University

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Date of Birth: 19<sup>th</sup> of June 1981

Nationality: Dutch

Gender: Female

## *Education*

**2005-2009 PhD, Oxford University Centre for the Environment, Oxford, England**

Title: "Development and evaluation of a European daily high-resolution gridded dataset of surface temperature and precipitation for 1950 - 2006", Daily supervisor: Dr. Mark New

**2003-2005 MSc, Wageningen University, Wageningen, the Netherlands**

MSc. Environmental Sciences, cum laude (top 5%).

Major: Environmental Systems Analysis, minor: Air Quality.

**2000-2003 BSc, Wageningen University, Wageningen, the Netherlands**

BSc. Environmental Sciences. Specialisation: Environmental Systems Analysis

## *Professional background*

- **2008-present** Assistant professor, *Environmental Systems Analysis Group, Wageningen University*
- **2005-2009** PhD, *Oxford University Centre for the Environment, Oxford, England*

## *Research experience*

The main focus of my work is to apply environmental systems analysis approaches to the field of water and health. With my group we have initiated and are developing the Global Waterborne Pathogen (GloWPa) model that simulates pathogen concentrations in surface water worldwide. I and my team also develop microbiological water quality models at a more local scale, for example in basins in Bangladesh and Pakistan, in Mexico city, and in Uganda for the Bill and Melinda Gates foundation funded project Knowledge to Practice (K2P) in which we utilise the data from the literature summarised in the Global Water Pathogen Project (GWPP, [www.waterpathogens.org](http://www.waterpathogens.org)) and develop an app for others to estimate the microbial water quality in their own regions. We use the models in scenario analyses to understand global change impacts on waterborne pathogens and disease and also explore opportunities to use the model in microbial risk assessment. I aim to contribute an integrated approach that works towards solving environmental problems and reaching the Sustainable Development Goals.

- **2018-2020** Bill and Melinda Gates foundation funded project K2P
- **2017** Organising an international workshop entitled "Water quality: a new challenge for global scale modelling" to be held in Wageningen 18-21 September 2017
- **2013 – present** Guest-editor for:
  - Current Opinion in Environmental Sustainability for special issue on Global Water Quality Modelling (2019)
  - Journal of Environmental Quality for special issue on Microbial Water Quality (2018)
  - Food Research International for special issue on Climate Change and Food Safety (2014)
- **2011-2014** Work package leader for WP9 of the EU funded Veg-i-Trade project
- **2010 – present** PhD Supervision
  - **Cheng Liu** September 2010 – 2015, defense 8 September 2015
  - **Muhammad Shahid Iqbal** September 2012 – 2017, defense 30 August 2017
  - **Lucie Vermeulen** January 2013 – 2018, defense 16 February 2018
  - **Majedul Islam** July 2013 – 2017, defense 30 August 2017

- Daniel Okaali April 2018 – present
- Nancy Mondragon July 2018 - present
- 2005 – 2009 PhD at the Centre for the Environment at Oxford University; worked in an international team on the observational temperature and precipitation dataset (E-OBS) for the EU-funded project ENSEMBLES.

### *Teaching experience*

I have been involved in teaching activities ever since I was a student. First as student assistant, then as tutor teaching climatology to geography students during my PhD, and currently as course coordinator and lecturer in Environmental Systems Analysis courses at Wageningen University. I (re)developed several courses, such as the MSc course Introduction to Global Change, the BSc course International Study Visits for Environmental Science students (who learn how to collaborate with students from Kiev, Ukraine, while learning all about radioactivity and nuclear power) and the course Introduction to Environmental Systems Analysis for 2<sup>nd</sup> year BSc students around Climate Change Impact Assessment. I obtained my University Teaching Qualification in 2011 and have been involved in the Programme Committee for Environmental Sciences.

### *Acquisition*

- 2018 Funding from Michigan State University to make microbial water quality maps and scenarios for the Bill and Melinda Gates Foundation funded project K2P
- 2018 Mexico government funding for Nancy Mondragon's PhD
- 2017 Funding from OECD-CRP to organise a workshop entitled "Water quality: a new challenge for global scale modelling" to be held in Wageningen 18-21 September 2017
- 2010-2014 Funding for PhD projects from Lucie Vermeulen, Shahid Iqbal and Majedul Islam

### *Key Publications*

My 35 papers (of which 1 has been submitted and 4 are still in press) have been cited 1,235 times in total. My H-index is 11. (Web of Science, 17-10-2018)

- Hofstra, N., Vermeulen, L.C., Derx, J., Flörke, M., Mateo-Sagasta, J., Rose, J., Medema, G.J. (2019) Priorities for Developing a Modelling and Scenario Analysis Framework for Waterborne Pathogen Concentrations in Rivers Worldwide and Consequent Burden of Disease. *Current Opinion in Environmental Sustainability*. In Press.
- Vermeulen, L. C., Van Hengel, M., Kroeze, C., Medema, G. J., Spanier, E. J., van Vliet, M. T. H. and Hofstra, N. (2018) 'Cryptosporidium concentrations in rivers worldwide', *Water Research*, In Press
- Islam, M. M. M., Iqbal, M. S., Leemans, R. and Hofstra, N. (2018) 'Modelling the impact of future socioeconomic and climate change scenarios on river microbial water quality', *International Journal of Hygiene and Environmental Health* 221(2), pp. 283–292.  
doi: <http://dx.doi.org/10.1016/j.IJHEH.2017.11.006>.
- Vermeulen, L. C., Benders, J., Medema, G. and Hofstra, N. (2017) 'Global Cryptosporidium Loads from Livestock Manure', *Environmental Science and Technology*, 51(15).  
doi: <http://dx.doi.org/10.1021/acs.est.7b00452> .
- Kroeze, C., Gabbert, S., Hofstra, N., Koelmans, A. A., Li, A., Löhr, A., Ludwig, F., Stokal, M., Verburg, C., Vermeulen, L., van Vliet, M. T., de Vries, W., Wang, M. and van Wijnen, J. (2016) 'Global modelling of surface water quality: a multi-pollutant approach', *Current Opinion in Environmental Sustainability*, 23. doi: <http://dx.doi.org/10.1016/j.cosust.2016.11.014>.
- Kiulia, N.M., Hofstra, N., Vermeulen, L.C., Obara, M.A., Medema, G. and Rose, J.B. (2015) Global occurrence and emission of rotaviruses to surface waters. *Pathogens* 4(2), 229-255.  
doi: <https://doi.org/10.3390/pathogens4020229>.

### *Other*

I frequently present at international conferences and workshops. I regularly review articles for scientific organisations and journals, including *Climatic Change*, *Water Research* and many others.