



Netherlands Organisation for Scientific Research



Delft
University of
Technology

Faculty/department Technology, Policy and Management

Level Master degree

Maximum employment 38 hours per week (1 FTE)

Duration of contract 4 years

Salary scale €2,083 to €2,664 per month gross

2 PhD Candidates Water Governance in Urbanizing Deltas

Within the Department of Multi-Actor Systems, the Policy Analysis section of the Faculty of Technology, Policy and Management at Delft University of Technology has openings for two PhD candidates for interdisciplinary research projects in the area of water governance. The PhD candidates' work will be part of projects financed by the Netherlands Organisation for Scientific Research (NWO), under its programme "Urbanising Deltas of the World". The positions are based in Delft, the Netherlands, but will require international travel for field work and workshops.

Salary and benefits

TU Delft offers an attractive benefits package, including a flexible work week, free high-speed Internet access from home, and the option of assembling a customised compensation and benefits package (the 'IKA'). Salary and benefits are in accordance with the Collective Labour Agreement for Dutch Universities.

Appointment: Fixed-term, 4 years

Organization

[Delft University of Technology](#)

Delft University of Technology (TU Delft) is a multifaceted institution offering education and carrying out research in the technical sciences at an internationally recognized level. Education, research and design are strongly oriented towards applicability. TU Delft develops technologies for future generations, focusing on sustainability, safety and economic vitality. At TU Delft you will work in an environment where technical sciences and society converge. TU Delft comprises eight faculties, unique laboratories, research institutes and schools.

Multi-Actor Systems Department

The Multi-Actor Systems Department works in the area of complex, networked systems. It unites a systems perspective, rooted in the engineering sciences, with an actor perspective, rooted in the social sciences, in its research on complex, societally relevant issues and the decision-making processes that characterize them. The MAS department's research aims to develop innovative concepts, methods, and tools for understanding, supporting, and designing multi-actor decision-making and coordination in a networked society with its many converging systems.

Policy Analysis Section

The Policy Analysis Section works on problems that are characterized by the presence of actor interdependencies and uncertainties. The section aims to use, improve and develop methods and techniques for planning, execution, and evaluation of public policy and management in complex multi-actor environments. In doing so, it emphasizes the use of models, ranging from conceptual models to computational simulation models and serious gaming. Its work

spans different application domains, with strong research portfolios in the areas of water and deltas, energy, and transportation systems.

Information and application

For more information about this position, please contact Leon Hermans, phone: +31 (0)15-2785776, email: l.m.hermans@tudelft.nl.

To apply please e-mail a detailed CV along with a letter of application by **30 April 2014** to Ciska Jautze, vacature-tbm@tudelft.nl.

When applying for this position, please refer to vacancy number **ATTBM14.005** (PhD1, 'Shifting grounds project') or **ATTBM14.006** (PhD2, 'Strengthening strategic delta planning project').

PhD1: Shifting grounds project (ATTBM14.005)

Institutional and game theoretical modelling

Project "Shifting Grounds: Institutional transformation, enhancing knowledge and capacity to manage groundwater security in peri-urban Ganges delta systems"

Description of Project and PhD research

Urbanizing deltas in South Asia have seen rapid growth and change. In cities such as Khulna in Bangladesh and Kolkata in India, this has resulted in an increasing pressure on groundwater resources in peri-urban areas. Existing institutions fail to ensure an equitable sharing and sustainable use of groundwater resources in this changing environment, which is evident from the uncoordinated overexploitation of aquifers and a reduced access for vulnerable groups. This project investigates institutional developments, looking at the dynamic interactions between different groundwater users, the groundwater systems and the influence of nearby cities. The insights should help local stakeholders to negotiate institutional transformations that support a more sustainable and equitable use of groundwater resources. Research activities are combined with workshops to strengthen the negotiation capacities of local stakeholders. Khulna and Kolkata provide an excellent basis for an institutional comparison, being part of the same Ganges delta system, yet located in different countries. Project partners include TU Delft, Both ENDS, SaciWATERS and Bangladesh University of Engineering and Technology.

The PhD researcher will make an institutional analysis of the existing structures and their functioning, for groundwater management in selected peri-urban villages in Khulna and Kolkata. Part of this analysis is the use of game theoretical models to capture some of the essential characteristics of resulting institutional processes. Based on these analytical insights, contributions should be made to the design and execution of workshops that help build capacity among local stakeholders. For this, the use of serious games is foreseen.

Requirements

Essential:

- MSc degree. Interdisciplinary degree, at the interface of water/environment and public policy analysis/social sciences. (e.g. Policy Analysis, Systems Engineering, Policy Sciences, Water Governance, Environmental Management, Institutional Economics, Development Studies).
- Outstanding analytical skills
- Good conceptual modelling skills
- Good communication skills, able to work with stakeholders in politically sensitive environments, and in different cultural environments
- International orientation
- Excellent command of the English language
- Ability to spend longer periods at case sites in Khulna and Kolkata for field work

Desirable:

- Knowledge of Bangla or Hindi
- Prior working experience in one of the case areas in India or Bangladesh
- Affinity for water resources management
- Competence and experience in research involving stakeholders
- Competence and experience in crossing disciplinary boundaries

PhD2: Strengthening Strategic Delta Planning project (ATTBM14.006) Stakeholder coalitions, evolution and learning

Project "Strengthening strategic delta planning processes in Bangladesh, the Netherlands, Vietnam and beyond"

Description of Project and PhD research

The sustained development of urbanizing deltas, raises conflicting interests among differing stakeholders that need to be accommodated in an integrated development. Such integration is characterized by technical complexity and knowledge limitations. Agreeing on strategic choices is difficult and implementation frequently leads to deviations of agreed plans. This project aims to better understand the dynamic delta planning process and the roles of stakeholders, experts and policy-makers therein. The project contributes to participatory planning tools and approaches that support the development of stable stakeholder agreements on strategic choices that can be effectively translated into innovative solutions. A cross-comparison of processes from Bangladesh, the Netherlands and Vietnam, helps distinguish context variables and generic mechanisms. A direct link to ongoing delta projects ensures the involvement and capacity building of key stakeholders and dissemination of results. Ultimately this should result in well-informed broadly supported plans, the implementation of which contributes to sustainable delta development. Project partners include UNESCO-IHE, TU Delft, Wageningen University, PBL, and Deltares in the Netherlands, as well as various partners in Bangladesh (CEGIS, BUET and IUCN) and Vietnam (VNU).

The PhD researcher focuses on the influence of existing policy structures on stakeholder coalitions and their evolution. This is to an important extent a descriptive research, drawing on previous research on learning by stakeholders in policy networks. The emphasis is on analysing the experiences in the Netherlands, adding a comparative perspective using insights from Vietnam and/or Bangladesh. The outcomes should provide insights into patterns of coalition formation and change that can help formulate process guidelines. A practical contribution is foreseen in the form of a rapid assessment approach for existing policy structures and their implications for strategic delta planning processes.

Requirements

Essential:

- MSc degree in Policy Analysis, Public Administration, Water Governance, Land Use Planning, Environmental Sciences, Sociology or another relevant degree at the interface of delta management and public policy analysis.
- Outstanding analytical skills
- Good (cross-cultural) communication skills,
- International orientation
- A good command of the English language
- Basic understanding of the Dutch language (ability to read case documents)
- Ability to travel for field work and project workshops

Desirable:

- Competence and experience in crossing disciplinary boundaries
- Affinity with water governance and/or delta planning
- A good command of the Dutch language (interviews and workshops for case)
- Experience with social network analysis, actor analysis, or similar methods for policy network research