Transitions in Water Management

The aim of this course is to provide students with theories and concepts to describe and explain current transitions in water management, which are aimed at a more integrated and adaptive management of water issues. The course focuses in particular on the flood risk management of open water bodies or surface water in delta areas where rivers and coastal areas come together – on creating flood resilient delta areas.

After completion of the course, students must be able to (6A):

1. Describe the characteristics and challenges of surface water systems, with a particular focus on delta areas where rivers and coastal zones come together. (1E) (4B)

2. Describe and explain various concepts of transition, transition management, adaptive capacity and resilience. (1B) (1C) (1G) (3E)

3. Drawing on these theoretical explorations, identify and analyse current transitions in water management in delta areas, which are aimed at a more integrated and adaptive management of water issues. (1G) (2C) (2F) (6A) (5E)

4. Comment on issues and dilemmas in current practices of water transition management. (1C) (2H) (2J) (3C)

5. Suggest and develop possible water management strategies and measures to manage water transitions. (1A) (2A)

After completing the assignment, students are able to:

Provide an overview of and explain current problems and dilemmas regarding a specific water management transition (3G)

Use insights from transition theory to conceptualize and provide a historical overview of the transition under study and explain why it is useful to frame issues as a transition (1G) (5E)

Develop an innovative strategic policy plan which is aimed to solve the current problems and dilemmas, and which builds on insights from transition management theory (2K) (4A) (4B) (5D)

Due to urbanisation and the potential impacts of climate change, flood risks in delta areas are increasing, and, as a consequence, water management is high on the international political and societal agenda. Worldwide, the need is recognized to develop strategies and measures to adapt land use to the already occurring effects of climate change, and to develop integrated and adaptive approaches for dealing with water issues in low-lying urban deltas. The development and implementation of these integrated and adaptive approaches is however not an easy task, as they often involve a substantive and/or governance transition in water management. Drawing on a theoretical exploration of the nature of transitions (including the notions of resilience and adaptive capacity) and the way in which transitions can be managed, the course focuses on identifying current transitions in water management in relation to climate change, and on discussing issues and dilemmas in the attempts to manage these water transitions in establishing resilient delta areas.

Through assignments, students will develop the capacity to suggest practical strategies and possibilities for water transition management for specific planning situations.

This course is part of the second year of the Double Degree Master Water and Coastal Management
and takes place in Groningen.

See https://www.rug.nl/ocasys/frw/vak/show?code=GEMTRWATM for more information about this course.

Modullevel
Modulart
Lern-/Lehrform / Type of program
Vorkenntnisse / Previous knowledge

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<tr>
<th>Examination</th>
<th>Time of examination</th>
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<tbody>
<tr>
<td>Final exam of module</td>
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<td>Examination with open questions, Group assignments (and peer-review reports)</td>
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Course type: Seminar

SWS
Frequency
Workload attendance 0 h