

Project fiches of UDW projects

1.1 UDW 104. Shifting Grounds: Institutional transformation, enhancing knowledge and capacity to manage groundwater security in peri-urban Ganges delta systems

Part of: UDW-104
Duration: Oct 2014 - Sep 2018
Website: <http://saciwaters.org/shiftinggrounds/index.html>

Short description:

The project focuses on groundwater management in peri-urban areas around the urban centres of Khulna (Bangladesh) and Kolkata (India). In these rapidly changing peri-urban areas, pressure on groundwater resources is increasing and the existing institutions, which are either rural or urban in nature, no longer provide an adequate framework that ensures sustainable and equitable management of groundwater resources. Research by two PhD students and a postdoctoral researcher will build further understanding of the dynamic interplays between the physical groundwater system, the socio-economic livelihoods, and the institutions that govern access to groundwater resources in these peri-urban areas. These research activities are intertwined with processes aimed at capacity building among local stakeholders in selected peri-urban villages. This close linkage between research and development activities ensures the usefulness of the applied research activities, and contributes to the negotiation capacity of local stakeholders. This should enable local stakeholders to enter into a dialogue with regional and national policy makers that will lead to improved institutional arrangements for groundwater governance.

Partners:

TU Delft
SaciWATERS
BUET (IWFM)
Both ENDS
JJS
The Researcher

Project contact: w.a.h.thissen@tudelft.nl; l.m.hermans@tudelft.nl

Type of project: Research project

Issues that the project deals with:

Groundwater resources, Local stakeholders, Social processes, Policy planning, Institutional reform, Water management, Urban development

What does the project offer to other projects:

We engage with local stakeholders and study groundwater-livelihood dynamics and the institutional arrangements that govern those. Three things to highlight here: data and tools developed; our partners in the South for stakeholder engagement; link to a South Asian peri-urban research network.

1. We will collect 'baseline' data on each of these three aspects, and, eventually, hope to also develop/test serious games on groundwater usage with local stakeholders to support their dialogue on improving institutional arrangements.

The effort to establish more effective linkages and dialogues between national and local levels should probably be of interest to other projects as well. We can offer our lessons in preparing local stakeholders for dialogue, using our experiences with the "negotiated approach" as a process used by Both ENDS and its partners in the south.

2. We believe we have quite strong local partners for this kind of work in this region: JJS, SaciWATERS and support from Both ENDS on using and further strengthening their Negotiated Approach.

3. Furthermore, through partners SaciWATERS and BUET-IWFM there is access to a larger regional (international) network of research on peri-urban water security and water management in South Asia.

What does the project ask from other projects:

Good coordination and exchange of data and insights with other projects working in the Khulna region in Bangladesh. Especially related to groundwater research and local stakeholder processes.

Possibilities for synergy/collaboration around local level capacity building with local stakeholders in our project areas.

Information sharing about the formal institutions that govern local water management in Bangladesh. Especially operational policy implementation guidelines are often not available in English.

In future years possibly testing audiences for serious game around groundwater access.

Preferred type of cooperation:

Sharing knowledge and experience in areas of shared thematic interests (institutions, groundwater, local stakeholder engagement, etc)

Coordinated collaborations with ongoing projects and initiatives in the region such as Blue Gold, BDP2100, Nuffic,...

Any other relevant projects:

Cap-Net ?

I am interested in cooperation with the UDW programme

1.2 UDW 104. Shifting Grounds: Institutional transformation, enhancing knowledge and capacity to manage groundwater security in peri-urban Ganges delta systems

Part of: UDW-104
Duration: 01/10/2014-30/09/2018
Website: <http://saciwaters.org/shiftinggrounds>

Short description:

The Shifting Grounds project aims to build knowledge and capacity among local actors to support a transformation process in peri-urban delta communities in Bangladesh and India for a pro-poor, sustainable and equitable management of groundwater resources across caste/class and gender. This will be based on an improved understanding of the dynamic interplay between local livelihoods, the groundwater resource base, formal and informal institutions and links with nearby urban centres in Khulna and Kolkata. These two cities provide a good basis for an institutional comparison, being part of the same Ganges delta system, yet located in different countries.

Detailed study on the emerging issue of peri-urban institutions for groundwater management is linked to a structured process that seeks to strengthen the negotiation capacities of local stakeholders. These capacity building and development activities are rooted in the Negotiated Approach, which has been used by civil society organizations to facilitate the involvement of local users in river basin management. This approach is further developed for application in groundwater management. Novel supporting tools and techniques, including serious gaming and game theory, multidimensional (ground) water poverty assessment, and interactive grounded-theory analyses, are explored for their utility in facilitating negotiation processes. Participatory monitoring and evaluation of project interventions is used to ensure learning for both science and policy-making.

Partners:

1. Delft University of Technology, Faculty of Technology, Policy and Management (TU Delft)
2. Institute for Water and Flood Management (IWFM), Bangladesh University of Engineering and Technology (BUET), Dhaka.
3. SaciWATERS, the South Asia Consortium for Interdisciplinary Water Resources Studies
4. Both ENDS, Amsterdam, the Netherlands
5. Jagrata Juba Shangha (JJS), Bangladesh
6. The Researcher, Kolkata, India.

Project contact: Myself: Md. Rezaul Hasan, Ph D Scholar, BUET, E-mail: rhasan.j.1972@gmail.com or mrh@iwmbd.org [Team Leader: Dr. ir Wil Thissen, Delft University of Technology, the Netherlands, E-mail: W.A.H.Thissen@tudelft.nl

Type of project: Research project

Issues that the project deals with:

Groundwater resources, Hydrology, Salt water intrusion, Social processes, Modelling / GIS, Scenario development, Institutional reform, Drinking water, Water management

What does the project offer to other projects:

What does the project ask from other projects:

Preferred type of cooperation:

I am interested in cooperation with the UDW programme

Contact address: rhasan.j.1972@gmail.com

1.3 UDW 104. Shifting Grounds: Negotiated Approach in Shifting Grounds

Part of: UDW 104; Shifting Grounds: Institutional transformation, enhancing knowledge and capacity to manage groundwater security in peri-urban Ganges delta systems

Duration: Oct 2014-Oct 2018

Website: bothends.org

Short description:

The Negotiated Approach in this project is used by Both ENDS and its partners to capacitate and empower local communities and local governments in order to create a level playing field for policy influencing on groundwater management in peri-urban areas of Kolkata (India) and Khulna (Bangladesh).

Partners:

Both ENDS
JJS (Bangladesh partner)
The Researcher (Indian partner)
TU Delft (dep. TBM)
SaciWaters (India)
BUET Univ. (Bangladesh)

Project contact: r.kempers@bothends.org

Type of project: Capacity building project

Issues that the project deals with:

Groundwater resources, Salt water intrusion, Local stakeholders, Social processes, Scenario development, Policy planning, Institutional reform, Drinking water, Water users organizations, Water management

What does the project offer to other projects:

What does the project ask from other projects:

Preferred type of cooperation:

2.1 *UDW-105. Rise and Fall: Fresh and saline groundwater dynamics*

Part of: UDW-105. Rise and Fall: strategies for the subsiding and urbanising Mekong Delta (Vietnam) facing increasing salt water intrusion

Duration: 1/10/2014 - 1/10/2018

Website: <http://rf.ctu.edu.vn/en/index.php/introduction/177-wp-3-2-fresh-and-saline-groundwater-dynamics>

Short description:

The project aims to enhance the capabilities of individuals and organisations to develop sustainable strategies for dealing with groundwater extraction, land subsidence and salt water intrusion in the increasingly urbanising Mekong Delta (Vietnam). We will enlarge the knowledge base of stakeholder (including policymakers, water managers and scientists) and work with them to develop and implement innovative tools and technologies in practice and policy.

Partners:

- Utrecht University – Dept. of Physical Geography
- Division of Water Resources Planning and Investigation for the South of Vietnam
- Deltares
- Geological Survey of the Netherlands/TNO

Project contact: Frans van Geer frans.vangeer@tno.nl

Type of project: Research project

Issues that the project deals with:

Groundwater resources, Hydrology, Salt water intrusion, Scenario development, Drinking water, Water management

What does the project offer to other projects:

We analyze the dynamics of fresh and saline groundwater as a result of natural as well as managerial courses in typically large scale delta areas. We aim to provide insight into the consequence of different future scenarios for the (potential) drinking water resources. These future scenarios involve automatic developments like global change and sea level rise as well as changes in water demand for the population and land use. In the overarching project our output is input for the project Geology, lithology and subsidence. Together with this project and the project Salt water intrusion in estuarine channel networks we deliver the contact for the tool box developed in the project Integrated Delta Model. Other UDW projects might benefit from the results of our project by gaining insight into the sub surface effects of different management policies, at least conceptually.

What does the project ask from other projects:

In the last part of our project we plan to quantify the effects of different management policies and autonomic developments. Therefore we need realistic scenarios concerning the increase of water demand, the possibilities of change in land use, global change and sea level rise. Other projects might provide insight into these scenarios, in particular the possibilities regarding policy and management of water resources.

Preferred type of cooperation:

Within the overarching project we have regular meetings and workshops. It would be nice to have also joint papers and conference presentations to stress the integral character of the management of delta areas.

2.2 UDW-105. Rise and Fall: Integrated Project

Part of: UDW-105. Rise and Fall: strategies for the subsiding and urbanising Mekong Delta (Vietnam) facing increasing salt water intrusion

Duration: 5 years

Website: <http://rf.ctu.edu.vn/>

Short description:

The project aims to enhance the capabilities of individuals and organisations to develop sustainable strategies for dealing with groundwater extraction, land subsidence and salt water intrusion in the increasingly urbanising Mekong Delta (Vietnam). We will enlarge the knowledge base of stakeholder (including policymakers, water managers and scientists) and work with them to develop and implement innovative tools and technologies in practice and policy.

Partners:

1. Faculty of Geosciences, Utrecht University
2. Can Tho University
3. TNO - Geological Survey of the Netherlands
4. Deltares
5. DWRPIS
6. SIWRR

Project contact: full name: Pham Van Hung and email: hungalhp@yahoo.com

Type of project: Research project

Issues that the project deals with:

Groundwater resources, Salt water intrusion, Local stakeholders, Modeling / GIS, Drinking water, Water users organizations, Water management

What does the project offer to other projects:

What does the project ask from other projects:

Preferred type of cooperation:

I am interested in cooperation with the UDW programme

Contact address: hungalhp@yahoo.com

2.3 UDW-105. Rise and Fall: Main programme

Part of: UDW-105. Rise and Fall: strategies for the subsiding and urbanising Mekong Delta (Vietnam) facing increasing salt water intrusion

Duration: 5 years (60 months from September 2014)

Website: www.uu.nl/en/futuredeltas/project-rise-and-fall or: www.rf.ctu.edu.vn/en/riseandfall.org

Short description:

The project aims to enhance the capabilities of individuals and organisations to develop sustainable strategies for dealing with groundwater extraction, land subsidence and salt water intrusion in the increasingly urbanising Mekong Delta. A new integrated delta model will be developed, linking surface water, groundwater and geomechanical models to analyse the interrelated character of groundwater extraction, subsidence levels and salt water intrusion. Together with stakeholders the new delta model will be constructed and applied to quantify the effects of water management strategies in the Mekong delta.

Partners:

The Netherlands:

Utrecht University - Utrecht
Deltares - Delft/Utrecht
TNO the Geological Survey of the Netherlands - Utrecht

International/ Vietnam:

Vitens - Evides International - Ho Chi Minh City (HCMC)
Can Tho University - Can Tho
Division of Water Resources Planning and Investigation for the South of Vietnam (DWRPIS - HCMC)
Southern Institute for Water Resources Research (SIWRR, HCMC)

Associated partner:

Vietnam National University of Ho Chi Minh City (HCMC)

Project contact: Prof. dr. Piet Hoekstra - project leader p.hoekstra@uu.nl

Type of project: Research project

Issues that the project deals with:

Groundwater resources, Hydrology, Salt water intrusion, Land subsidence, Local stakeholders, Modeling / GIS, Scenario development, Policy planning, Drinking water, Water users organizations, Water management, Urban development

What does the project offer to other projects:

Design of a modeling framework to deal with subsidence in river deltas due to the extraction of groundwater.
The integrated delta model offers the opportunity to evaluate governance and management strategies to analyse the effect of groundwater extraction on subsidence and salt water intrusion
Water governance for a rapidly developing delta system such as the Mekong Delta.

What does the project ask from other projects:

Relevance of groundwater extraction and subsidence for other delta systems.
Groundwater behaviour and salinity intrusion

Preferred type of cooperation:

We are project within UDW

Contact address: p.hoekstra@uu.nl

3.1 UDW-106. Strengthening Strategic Delta Planning Processes in Bangladesh, the Netherlands, Vietnam and beyond - actor coalition formation and change

Part of: UDW-106

Duration: 08/14-06/19

Website: <http://strategic-delta-planning.unesco-ihe.org/>

Short description:

Strategic delta planning is a relatively novel approach that is increasingly used to support long-term integrated and adaptive management of urbanizing deltas, for instance in the Netherlands, Vietnam and Bangladesh. Although strategic delta planning is generally initiated as a concerted effort during a limited period of years, it does not take place in a vacuum. Delta planning needs to fit within a longer history of past planning efforts, societal structures and existing policy environments if it wants to secure a successful implementation throughout its longer-term planning horizon.

Partners:

Bangladesh:

- Bangladesh University of Engineering and Technology (BUET) | Umme Kulsum
- International Union for the Conservation of Nature (IUCN) Bangladesh Country Office | Istiak Sobhan

Netherlands:

- Unesco-IHE: Integrated River Basin Management, Integrated planning | Wim Douven (project leader)
- PBL The Netherlands Environmental Assessment Agency | Willem Ligetvoet and Leo Pols;
- Wageningen University (WUR): Water resources management, agriculture/food security, inter-disciplinary research | Gerardo van Halsema
- Delft University of Technology (TUD) | Wil Thissen
- Deltares: policy analysis / flood risk management | Marcel Marchand/ Kymo Slager

Vietnam:

- IUCN Vietnam Country Office | Jake Brunner
- Vietnam National University – Center for Water Management and Climate Change (VNU-WACC) | Ho Long Phi

Project contact: Myrthe Vermoolen, m.s.vermoolen@tudelft.nl

Type of project: Research project

Issues that the project deals with:

Local stakeholders, Social processes, Policy planning, Water users organizations, Water management

What does the project offer to other projects:

Case regarding actor coalition formation and change in Dutch Southwest Delta, and Southwest coastal Delta in Bangladesh, could potentially be used as real life situation;

What does the project ask from other projects:

Methods for stakeholder mapping applied in BD, NL, VN;
Vector maps of BD and VN Mekong Delta;

Preferred type of cooperation:

I am a PhD student in one of the UDW projects (see above), so already involved.

I am interested in cooperation with the UDW programme

Contact address: m.s.vermoolen@tudelft.nl

3.2 UDW-106. Strengthening Strategic Delta Planning Processes in Bangladesh, the Netherlands, Vietnam and beyond - Co-evolution between strategic delta planning and innovation

Part of: UDW-106
Duration: 54 months
Website: <http://strategic-delta-planning.unesco-ihe.org/>

Short description:

Strategic delta planning is a relatively novel approach that is increasingly used to support long-term integrated and adaptive management of urbanizing deltas, for instance in the Netherlands, Vietnam and Bangladesh. Although strategic delta planning is generally initiated as a concerted effort during a limited period of years, it does not take place in a vacuum. Delta planning needs to fit within a longer history of past planning efforts, societal structures and existing policy environments if it wants to secure a successful implementation throughout its longer-term planning horizon.

Partners:

UNESCO-IHE, TU-Delft, Wageningen UR, Bangladesh University of Engineering and Technology (BUET), Center for Environmental and Geographic Information Services (CEGIS), Vietnam National University (VNU-WACC), IUCN Bangladesh, IUCN Vietnam, Deltares, Netherlands Environmental Assessment Agency (PBL), Bosch Slabbers Landscape Architects

Project contact: Vo Thi Minh Hoang, vo.thiminhhoang@wur.nl

Type of project: Research project

Issues that the project deals with:

Local stakeholders, Social processes, Policy planning, Urban development, Adaptive Delta Management

What does the project offer to other projects:

- Generating knowledge and insights within the project scope which can be shared to other projects
- Supporting by material / documentation or data provision
- Sharing knowledge, lessons learnt and experiences
- Support academic activities such as organizing workshop, conference or training

What does the project ask from other projects:

- Supporting by material / documentation or data provision
- Sharing knowledge, lesson learnt and experiences
- Support academic activities such as organizing workshop, conference or training

Preferred type of cooperation:

- Supportive cooperation - Mutually beneficial cooperation

I am interested in cooperation with the UDW programme

Contact address: vo.thiminhhoang@wur.nl

3.3 UDW-106. Strengthening Strategic Delta Planning Processes in Bangladesh, the Netherlands, Vietnam and beyond

Duration:

Website: <http://strategic-delta-planning.unesco-ihe.org/introduction>

Short description:

The project aims to obtain better understanding of strategic delta planning processes and role of stakeholders, experts, policy-makers and participatory planning tools therein.

Partners:

Deltares, PBL, Bosch Slabbers, CEGIS, IUCN Bangladesh, BUET, IUCN Vietnam, VNU-WACC

Project contact: Shahnour Hasan

Type of project: Research project

Issues that the project deals with:

Local stakeholders, Scenario development, Policy planning, Adaptive Delta Management, Participatory planning tool

What does the project offer to other projects:

Other project personnel can learn about different participatory planning tools used in delta planning .

What does the project ask from other projects:

Knowledge sharing. Share any support base in case of similar case study area.

Preferred type of cooperation:

Knowledge sharing.

I am interested in cooperation with the UDW programme

Contact address: s.hasan@unesco-ihe.org

3.4 UDW-106. Strengthening strategic delta planning processes in Bangladesh, the Netherlands, Vietnam and beyond

Part of: UDW-106
Duration: sept 2014- march 2019
Website: strategic-delta-planning.unesco-ihe.org

Short description:

Worldwide a sustained development of urbanizing deltas is at risk. Deltas are vulnerable to flooding and sea level rise, ecosystems are threatened by urban sprawl, industrialisation and intensified agriculture. Due to these differing interests, it becomes difficult to agree on strategic choices for the spatial development of a delta. Strategic delta planning is an approach to come to a more sustainable development of a delta. During a strategic delta planning process, a vision (the strategic delta plan) is developed and actions and means for implementation are initiated. In many deltas around the world such a planning approach has started, ranging from Myanmar and Bangladesh to the Netherlands and the United States.

This project focuses on the Netherlands, Bangladesh and Vietnam. It aims to better understand the dynamic delta planning processes within a longer time-frame and the roles of stakeholders, experts and policy-makers therein. The researchers in the project study three crucial elements that together heavily influence the fit of delta planning within society: dynamics in stakeholder coalitions over time, the role of knowledge and tools that support participatory processes, and the role of technological advances and innovative solutions.

These scientific insights will be used to strengthen planning practice through tools and recommendations, supported by capacity building.

The project is linked to real-world strategic delta planning processes. 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, which contribute to sustainable delta development. 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.

Partners:

UNESCO-IHE - Department of Integrated Water Systems and Governance
TU Delft - Department of Multi Actor Systems
Wageningen University - Department of Water Resources Management
PBL
Deltares
Bosch+Slabbers
Bangladesh:
BUET (Bangladesh University of Engineering and Technology)
Center for environmental and Geographic Information Services (CEGIS)
IUCN
Vietnam:
Vietnam National University - Center for Water Management and Climate Change
IUCN

Project contact: Wim Douven (w.douven@unesco-ihe.org) and Chris Seijger (c.seijger@unesco-ihe.org)

Type of project: mix of research-societal relevance and capacity building

Issues that the project deals with:

Groundwater resources, Hydrology, Land subsidence, Local stakeholders, Social processes, Scenario development, Policy planning, Institutional reform, Water users organizations, Water management, Urban development, Migration, Adaptive Delta Management, str

What does the project offer to other projects:

- delta planning training workshops in southern countries
- tool for rapid assessment of stakeholder coalitions
- process guidance strategic delta planning processes
- guidance on arrangements that can help craft / bring in innovative solutions in planning process
- tailored participatory planning tools for strategic delta planning (scenario development, design charrettes, DENVIS)
- research material for curricula development on strategic delta planning at universities
- evaluate plan implementation difficulties using MOTA framework
- method to evaluate the use of participatory planning workshops
- integrated case study analyses of strategic delta planning in Bangladesh, Vietnam, the Netherlands

What does the project ask from other projects:

- issues that delta planners, policy makers and stakeholders face in strategic delta planning and implementation
- innovative (multifunctional) technological solutions that are considered to come to more sustainable deltas
- what have been major delta plans in Bangladesh and Vietnam in the past
- workshops that we could observe to see how participatory planning tools are applied
- what are the capacity needs in your organisation related to strategic delta planning and implementation?
- which case study areas (at local-regional level) are the projects active?

Preferred type of cooperation:

Different levels:

- knowledge sharing: invite other projects to each others meetings (like we did for our Inception workshop and the upcoming UDW meeting in Vietnam)
- joint output: together with all projects we are doing excellent research with so many re

Any other relevant projects:

Delta Alliance, Delta Coalition, the Dutch NKWK research programme, Bangladesh Delta Plan 2100, Dutch Delta Programme,

General remarks:

We filled in the form for the entire project including the different research projects of three PhD candidates and the postdoc
Looking forward to the outcomes of this mapping exercise!

I am interested in cooperation with the UDW programme

Contact address: c.seijger@unesco-ihe.org

4 UDW-107. Delta-MAR: Governance and hydrogeological prerequisites for sustainable water supply through MAR systems in urbanizing deltas, applied to Bangladesh

Duration: 10/2015 - 09/2010

Website:

Short description:

This project enhances fundamental knowledge on financial, institutional, environmental, technical, and social factors that influence the potential of Managed Aquifer Recharge (MAR) for safe drinking water provision in saline deltas, devoid of an adequate fresh water supply. The produced knowledge enables the elaboration of an integrated set of design, operation and governance criteria for optimal MAR performance, under varying socio-economic and hydrogeological conditions. Optimal-performance criteria, identified at the local level, are applied across scales to develop an evaluation method to identify suitable MAR implementation locations at the regional scale. The wide-scale, self-propelling diffusion of MAR is promoted through technological innovation system development. Project outcomes can be applied directly for the purpose of planning and the design of policies for the efficient and effective large-scale implementation of MAR systems in Bangladesh, and similar deltas elsewhere. To this end, a capacity building and a knowledge dissemination strategy is formulated.

Partners:

Utrecht University
TU Delft
Dhaka University
Acacia Water

Project contact: f.s.j.vanlaerhoven@uu.nl

Type of project: Research project

Issues that the project deals with:

Groundwater resources, Hydrology, Salt water intrusion, Local stakeholders, Social processes, Policy planning, Institutional reform, Drinking water, Water users organizations, Water management, Infrastructure design and implementation, Adaptive Delta Mana

What does the project offer to other projects:

- an integrated approach to solving drinking water issues (beta-gamma; well-design (water quantity), hydrology (water quality) and governance)
- a novel approach to the upscaling of innovative application through TIS (technological innovation systems approach)
- an institutional analysis approach to the co-management of infrastructures related with water management (i.e. creation of institutions for collective action)

What does the project ask from other projects:

Lessons-learned with regard to integrating natural and social sciences in an optimal way

Experiences of others with the institutionalization of the governance of large and small (water management) infrastructures

Preferred type of cooperation:

knowledge sharing that regard for example

- the applicability of MAR elsewhere
- the applicability of technological innovation system (TIS) approaches, elsewhere
- the use of decision-support systems

These types of collaboration could for example result

Any other relevant projects:

no

I am interested in cooperation with the UDW programme

Contact address: f.s.j.vanlaerhoven@uu

5 UDW-108. Adaptive Delta Management. Acculturation and development in Bangladesh and Indonesia

Duration: september 2014 - september 2018

Website: <https://nwoudw2015.wordpress.com/>

Short description:

This research focuses on the urgent problem of long-term planning in highly dynamic deltas under deep uncertainty. Adaptive Delta Management (ADM) is considered an innovative approach to cope with this problem, but yet mainly adopted for robust decision-making in developed countries. We will further develop, acculturate, and disseminate ADM to deltas in developing countries with different physical, socio-economic, cultural and governance settings.

Partners:

TUD
UU
UT
BUET
ITB
Deltares
CGIS
PUSAIR

Project contact: prof. W.A.H. Thissen w.a.h.thissen@tudelft.nl

Type of project: research and capacity building

Issues that the project deals with:

Groundwater resources, Hydrology, Salt water intrusion, Land subsidence, Local stakeholders, Modeling / GIS, Scenario development, Policy planning, Institutional reform, Water management, Urban development, Migration, Adaptive Delta Management

What does the project offer to other projects:

theory and practice on ADM and planning under deep uncertainty

What does the project ask from other projects:

substantive knowledge and model components

Preferred type of cooperation:

- Bangladesh Delta Plan
- National Capital Integrated Coastal Defense (NCICD) Jakarta

I am interested in cooperation with the UDW programme

Contact address: jos.timmermans@tudelft.nl

6 *UDW-109. Sustainable freshwater supply in urbanizing Maputo, Mozambique*

Duration: Feb 2014 - Feb 2019

Website: <http://sustainablewatermz.weblog.tudelft.nl/>

Short description:

Water reuse offers great potential for reducing water shortages in urbanizing deltas. However, suitable technologies and approaches lack for sustainable reuse in the social setting in development countries. The overall objective of the integrated project is to reduce water shortages in Maputo by enabling the local water sector to include water reuse in overall planning and design of the urban water system.

Partners:

TU Delft (NL), UNESCO-IHE (NL), Universidade Eduardo Mondlane (Mozambique), VitensEvides International (NL), RHDHV (NL) and FIPAG (Mozambique).

Project contact: André Marques Arsenio (PostDoc) - a.marquesarsenio@tudelft.nl

Type of project: Implementation project

Issues that the project deals with:

Salt water intrusion, Local stakeholders, Wastewater reuse, Modeling / GIS, Policy planning, Institutional reform, Drinking water, Water management, Urban development, Infrastructure design and implementation

What does the project offer to other projects:

We are on the inception phase and we have not developed tools yet. We can share information collected throughout the first year regarding water and sanitation issues in Maputo. Surely these issues are similar to the ones that cities in Developing countries face elsewhere.

What does the project ask from other projects:

I would get from this ideas on how to involve and engage stakeholders. We have defined our approach involving them in steering groups and frequently meeting them and attending local conferences and meetings. Nevertheless, I am sure that we have a lot to learn from other projects regarding this aspect.

Preferred type of cooperation:

ViaWater is a good example. UDW can also be a starting point for projects being funded through Drive (formerly Orio). Info <http://english.rvo.nl/subsidies-programmes/development-related-infrastructure-investment-vehicle-drive>

I am interested in cooperation with the UDW programme

Contact address: a.marquesarsenio@tudelft.nl

7 *UDW-110. Hydro-social Deltas*

Duration: May 2015 - April 2018

Website: <http://hydro-social-deltas.unesco-ihe.org/>

Short description:

The post-doctoral researcher, Anna Wesselink, will work with all project members in order to combine the empirical data and the outcomes of the PhD studies and MSc research (to be defined) in order to integrate research findings from both the Netherlands and Bangladesh. She will:

- explore how demographic transitions in the Southwest Delta of the Netherlands impact Dutch flood management policies;
- develop a conceptual model for understanding flows of water and flows of people;
- examine how the different delta trajectories followed by the Netherlands and Bangladesh may mutually inform future planning.

Partners:

UNESCO-IHE, Deltares, Wageningen University, Flood Hazard Research Centre Bangladesh, Bangladesh Centre for Advanced Studies, The Institute for Housing and Urban Development Studies of Erasmus University and University of Applied Sciences Zeeland.

Project contact: Anna Wesselink a.wesselink@unesco-ihe.org

Type of project: Research project

Issues that the project deals with:

Social processes, Policy planning, Water management, Migration, Adaptive Delta Management

What does the project offer to other projects:

What does the project ask from other projects:

Preferred type of cooperation:

I am interested in cooperation with the UDW programme