

WATERWORKS 2017 RDI FUNDED PROJECTS BOOKLET

Title of the project: NATURE-BASED SOLUTIONS FOR WATER MANAGEMENT IN THE PERIURBAN: LINKING ECOLOGICAL, SOCIAL, AND ECONOMIC DIMENSIONS

Outcomes and expected impact:

NATWIP aims at comprehensive research on NBS regarding water and wastewater-related needs in peri-urban areas. Though increasing interest in NBS in research and action is being expressed globally, this project's originality lies in: first, developing an innovative multi-disciplinary approach to designing & implementing NBS for water in the peri-urban, especially taking socio-economic perspective; second, evaluating the strengths & weaknesses of NBSs for water vis-a-vis conventional engineering solutions from economic, ecological & social perspectives; and third, adopting an evidence-based integrated approach rooted in European and international contexts to develop tools to promote NBSs for water in the peri-urban.

The innovation of the project basically lies in development of an interdisciplinary methodological framework to assess NBS for water and applying it to understand case situations spread across multiple European & international sites. The innovation further lies in creating a common narrative & hence best practices to deal with water challenges in the peri-urban through implementation of NBS. The innovativeness & comprehensiveness of the project can be further seen as represented by the 3 dimensions within which it operates: i) academic; ii) spatial; & iii) socio-political.

NATWIP will contribute for closing the water cycle gap in the peri-urban areas, tackling themes 2 and 3 of 2018 Joint Call ("Strengthening socio-economic approaches to water management" and "Supporting tools for sustainable integrative management of water resources", respectively). NATWIP will strengthen socio-economic approaches to water management by developing and sharing knowledge on NBS in peri-urban areas; proposing management tools and best practices guidelines regarding this theme; & raising social awareness about NBS; and defining ways and means for enhancing their acceptance and incorporation within policy and action instruments, & social acceptance of the new practices. It will also develop supporting tools for sustainable integrative management of water resources by establishing networks and knowledge sharing among partner institutions and by creating a framework for assessing and verifying different aspects of NBS. Lastly, case studies in various countries will provide information that could possibly be adapted to regions beyond the study areas.

The results of the project are primarily targeted to impact policymakers, planners, public sector and civil society practitioners as well as end-users in the community at large. Also, the industry – particularly consultancy firms, will be benefited through the framework and narratives. Another important user group of particularly the results of the international review would be researchers and students in the field.

List of deliverables expected:

1. 7-8 peer-reviewed scientific articles published in leading journals.
2. NATWIP project website
3. A comprehensive scientific review report on international experiences on NBS for water
4. A methodological framework for sustainability assessment of NBS for water
5. Case Study Briefs on NBS for Water in the Peri-Urban (9 in number)

<p>6. NBS for water in the Peri- Urban: A policy brief - Brief outline of the major findings of the project in the form of policy recommendations</p> <p>7. NBS for Water in the Peri-Urban: A Handbook for practitioners - to contain the methodological framework and 9 Case Studies</p> <p>8. NBS for water- Popular science publications in the form of 'photo-stories' and/or booklets published on project website</p>	
<p>Contact person(s) for Communication activities (name and e-mail)</p> <p>Nandita Singh (nandita.singh@sh.se)</p>	
<p>Contact person(s) for Dissemination activities (for open data and open access activities, name and e-mail)</p> <p>Nandita Singh (nandita.singh@sh.se)</p>	
<p>Expected research results to communicate and disseminate (in very general terms)</p>	<p>Target groups for communication and dissemination activities:</p>
<p>1. Scientific papers presenting the various findings of the research</p>	<p>Research community</p>
<p>2. Case Study Briefs on NBS for Water in the Peri-Urban</p>	<p>Individual reports outlining the results of application of the NBS assessment framework to the 9 selected case study sites</p>
<p>3. NBS for Water in the Peri-Urban: A Handbook for practitioners</p>	<p>To contain the methodological framework for NBS assessment and details of the 9 Case Studies, with guidelines aimed primarily at practitioners on how to use the framework for planning and implementing NBS projects sustainably</p>
<p>4. NBS for water in the Peri- Urban: A policy brief</p>	<p>Brief outline of the major findings of the project in the form of policy recommendations aimed primarily at policymakers & planners concerned with peri-urban areas</p>
<p>5. NBS for water- Popular science publications in the form of 'photo-stories' and/or booklets</p>	<p>To be made available on project website, primarily targeting ordinary water users, students, local NGOs and civil society forums & citizens at large</p>
<p>Case studies</p>	<p>1. Re-opening a stream running over two buried landfills at Kjørbekk, Skien Municipality, Norway</p>

	<ol style="list-style-type: none"> 2. Nature-based solutions for greywater treatment in the summer cottages of Norrtälje, in Stockholm Archipelago, Sweden 3. Planning and implementation of nature-based solutions in urbanising project in Årstafältet, Stockholm, Sweden 4. Jal-Jeevan-Hariyali Mission for integrated development in peri-urban Bihar, India 5. Alien tree clearing to improve water security in Dwars river, South Africa 6. Green infrastructure to improve wastewater management in an informal settlement in Langrug, South Africa 7. The Besòs river restoration project, Barcelona metropolitan area, Spain 8. The Udaipur Lake system in Rajasthan, India: an integrated nature-based solution for water sustainability connecting urban and peri-urban spaces 9. Forest restoration in Guandu river basin, Brazil
<p>Water Policy context / project contribution to policies (National, European, International – UN SDGs):</p>	<p>The knowledge created in the project variously contributes to strengthening action related to several International and European policies. The specific UN SDGs supported include: SDGs 1 (no poverty), 3 (good health & well-being), 5 (gender equality), 6 (clean water and sanitation), 8 (decent work & economic growth), 9 (industry, innovation & infrastructure), 10 (reduced inequalities), 11 (sustainable cities & communities), 13 (climate action), 14 (life below water), and 15 (life on land). The EU Water Framework Directive and several of the national policies related to water and environment are also supported in different ways.</p>
<p>Funders of the project:</p>	<ol style="list-style-type: none"> 1. Swedish Research Council for Sustainable Development (FORMAS), Sweden

2. Ministry of Economy, Industry and Competitiveness – through the State Research Agency (MINECO–AEI), Spain
3. Research Council of Norway (RCN), Norway
4. Water Research Commission (WRC), South Africa

Photo of the Research Team, if available:



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