

WATERWORKS 2017 RDI FUNDED PROJECTS BOOKLET

Project: To Ally Technology, Nature and Society for integrated urban water management

Acronym: ATENAS

Project Coordinator: Kinga Krauze k.krauze (at) erce.unesco.lodz.pl

Institutions: European Regional Centre for Ecohydrology PAS - **Country:** Poland

Project partners:

Institutions: SYKE - Country: Finland

Contact points: Antti Rehunen, antti.rehunen(at)ymparisto.fi

Project partners:

Institutions: IRSTEA - Country: France

Contact points: Pascal Breil, pascal.breil (at) irstea.fr

Project partners:

Institutions: FPP Enviro - Country Poland

Contact points: Iwona Wagner, iwona.wagner(at)fppenviro.pl

Project structure (WPs description):

WPX - Coordination & management: will set up a project management office to ensure a productive and smooth interaction and collaboration among project partners and monitor progress with milestones and deliverables. It will facilitate exchanges between partners through arranging meetings, researcher and key stakeholders mobility. It is also dedicated to project reporting and functions as contact point for JPI-Water.

WP1 - Enabling & critical environment: The critical points of NBS application will be analysed by reviewing ongoing developments in different contexts, using data from recent inventories and in-depth study of case areas, to create basis for the selection and re-design of NBS. The review is based on published NBS studies and presentations, such as almost 1000 NBS examples from across 100 European cities collected in Urban Nature Atlas by Naturvation project and H2020 Connecting Nature. This data is accompanied with national inventories on NBS in sustainable water management and workshop discussions on critical success factors and barriers with stakeholders from case areas. We address different types of critical points in all phases of planning and implementation process and develop indicators for them. We consider technical, ecological, organisational, social and economic aspects and explore how different factors are interconnected. Through the analysis of local context-dependencies, we distinguish critical points for replication and up-scaling of NBS.

WP2 - Modelling for the best NBS management options: To meet already identified knowledge needs, and provide a basis for critical NBS

overview ATeNaS will implement a nested models approach, with a simple model to develop diagnosis at a watershed scale. A mix conceptual-deterministic model will be used to simulate scenarios of cumulated and combined effect of NBS and temporal dynamic of a NBS system. Because NBS systems in cities are space constraint, they need to be of limited size and thus the impact can be generated only based on synergistic effect. Hence identification of catchments hot-spots for replication of co-designed NBS is to be an important task for WP2, taking into account possibility of amplification of natural processes with ecosystem engineering, and interaction of NBS. The basin scale approach will apply a simple GIS based model.

WP3 - NBS scanning, selection, re-design: Capitalizing on the information about environmental context (WP2) and critical stakeholders (WP1/5) and engaging the business partner FPP Enviro, ATeNaS will carry an overview of both popular and site specific NBS, including ecohydrological NBS elaborated within UNESCO IHP Water Family. The selection will be verified and reduced during expert workshops, when only NBS of the highest usability and feasibility for the demonstration sites will be chosen. Those will be presented to stakeholders as a basis for co- and re-design workshops focused on meeting local needs, including multi-functionality, aesthetics, sense of place and education. The exemplary NBS implementations will be facilitated in all demo sites.

WP4 - Closing Water Gap – strategy setting for NBS implementation: Based on identified hot-spots for water and nutrient regulation (WP2) in catchment scale, and considering opportunities/constraints of NBS implementation (WP1), ATeNaS will analyse together with local decision makers the upscaling options for NBS implementations in each demo site: their best locations in terms of land availability and interest of local communities, and areas of particular needs: water purification, water augmentation, arrangement of common spaces, education and risk management. Funding options and local expertise (e.g. dedicated SMEs) will also be considered. The proposal will be verified by models of WP2.

WP5 - Mutual learning: In science-policy-society dialogue ATeNaS follows a co-design and co-creation methodology currently being developed and tested at various projects at SYKE (e.g. EKLIPSE and BRO). The approach covers joint framing of challenges, contextual analysis, innovative integration of solutions and synthesis through a range of joint activities. The analysis will follow Multi-Criteria Decision Analysis (MCDA) approach that supports comprehensive and interactive assessment of alternatives. Collaboration is organised following the practical guidelines of The BiodivERsA Stakeholder Engagement Handbook (www.biodiversa.org/stakeholderengagement). The co-design approach will enable mutual learning, real time and ongoing feedback, cross-fertilization of ideas and NBS design to meet the needs of the end-users.

Contact person for Communication activities: Kinga Krauze k.krauze@erce.unesco.lodz.pl

Contact person for Dissemination activities: Renata Włodarczyk-Marciniak r.wlodarczyk@erce.unesco.lodz.pl