

NBS in Water Management Community Charter

1. Background and objectives

Nature based solutions (NBS) are *actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and resilience and biodiversity benefits* (United Nations Environment Assembly, 2022).

Their value and importance to address water challenges and to broader sustainable development and climate resilience is increasingly recognized. The European Commission affirms for example that *NBS are solutions that are inspired and supported by nature, they are cost-effective, and simultaneously provide environmental, societal and economic benefits, while building up resilience. NBS must support biodiversity and enhance natural capital.* And, according to the United Nations Environmental Programme, NBS are a “fundamental part of any action for climate and biodiversity and are an essential component of the overall global effort to achieve the goals of the Paris Agreement on climate change”.

On the other hand, implementation of NBS, whilst growing, is still lagging behind. Major challenges faced include (adapted from World Water Development Report 2018): dominance of grey-infrastructure solutions, institutional fragmentation, regulatory and policy barriers, potentially large physical footprint, inadequate financial models, and important capacity & knowledge limitations. There is still a **lack of awareness, insufficient cross-sectoral exchange and knowledge fragmentation** which all burdens a wider recognition and implementation of NBS.

Based on the relevance of the NBS, the GWP has established a mission to **define, design and launch a community of practice (CoP) related to NBS**. The community will build on the GWP Toolbox – IWRM action hub, which GWP has recently developed and launched ([Home | GWP Toolbox](#)). This is a tool that allows stakeholders to learn, explore and connect about different integrated water management actions. The tool, among other functions, also allows technical design and implementation of different online CoPs. It can foster networking, exchanges and discussions on the specific topics.

Objectives of the Community of practice for Nature-Based solutions in Water Management (NBS CoP):

The proposed main goal of the CoP is to engage NBS experts, practitioners and other interested stakeholders from different sectors to discuss, debate and learn about NBS in water management and establish synergies with other sectors, which will consequently result in its wider recognition, increased capacity, enhanced intersectoral cooperation and new implemented measures and projects related to NBS.

Specific objectives would be to:

- Encourage networking among experts and practitioners by exchanging knowledge, experiences on specific issues related to NBS in water management
- Reduce the gap among the experts and practitioners by showcasing implementation examples and discuss the main implementation challenges.
- Create the environment to discuss innovative ideas and develop new projects.
- Raise awareness on NBS in water management by sharing the news, good examples, case studies and projects from different regions and contexts.

2.Content scope

Key NBS issues and challenge

NBS cover a very wide range of technical and soft measures that are related to many different sectors: water management, agriculture, urban planning, forestry, risk management, energy, human health etc. **The NBS in water CoP will focus on NBS in water management**, but it will also tackle other sectors (e.g., agriculture, energy and spatial planning) especially through the multisectoral nature of NBS measures and benefits and through horizontal challenges such as climate change adaptation and mitigation or resource recovery and reuse.

Some of the major challenges related to planification and implementation of NBS in water management that the CoP will help to address are:

- Demonstrating economic benefits and ecosystem services of NBS (evaluation of ecosystem services and direct and indirect economic benefits compared to traditional grey solutions) .
- Showcasing practical values of NBS through different implementation examples and case studies.
- Reducing sectoral gaps and build synergies among all relevant sectors and identifying benefits, especially by engaging practitioners.

- Demonstrating importance of NBS for climate change mitigation and adaptation.
- Mainstreaming NBS in governance/spatial planning (raising awareness among policy makers to include NBS in the strategic planning processes)
- Fostering exchange of knowledge across sectors and countries
- Encouraging potential fundraising activities.

To define the CoP and understand interests and needs of the potential target audience, a survey and interviews were carried out in July 2022. From these consultations, several topics within NBS in water management were identified as relevant. Given the scope of related topics and issues, **we are suggesting to anchor main CoP activities initially around 3 or 4 key topics**, with the aim to ensure targeted approach and focused discussions. Three topics suggested to be in a special focus at the launch of the NBS CoP are:

- **Droughts and floods** (NBS for drought management and water retention in landscapes, floodplain restoration)
- **Sustainable sanitation and water reuse** (sanitation in rural areas and small settlements, reuse of water in agriculture, reuse of nutrients and organic matter)
- **NBS in cities** (stormwater management, NBS for heat island mitigation, urban greenery etc.)

Key actors involved in the design of the CoP might propose other topics to focus on, based on individuals' interest and capacities.

This initial emphasis on certain topics does not mean that other relevant topics for NBS in water management will not be within the scope of the CoP. Members will be strongly encouraged to share news and discuss on any relevant issues related to NBS in water management. The idea is then to **progressively highlight other topics based on needs and ongoing activities** and discuss on any relevant challenges in parallel with the growth of the community.

Link with other communities

Other communities relating to NBS that were identified during the **landscape analysis** can be grouped into:

- **Project platforms and toolboxes** developed in the framework of different projects, for example EU projects (e.g. ThinkNature, CircularCity, Optain, NetworkNature, ReGreen, PEDRR). They are focusing on presentation of various NBS, good practices and case studies. Some are offering design and planning tools or guidelines. As they originate from projects, their long-term sustainability is not ensured.

- Link to NBS CoP: as one of the activities, we will contact project coordinators and invite them to present their platforms/tools
- **Active online communities** like IWA connect, SuSaNa, Water Europe, The Nature Conservancy on Water Funds, Global Center on Adaptation and Society of wetland scientists have their own networks which also relate to NBS challenges.
 - Link to NBS CoP: as one of the activities, we will promote NBS CoP in these communities and invite their members to join the NBS CoP and present their work on NBS
- **Specific networks without an online community** connect experts on certain topic or catchment but communicate internally via emails etc., like International Ecological Engineering Society, Australian Water Association, Asia-Pacific Network, Sava Commission, European Centre of River Restoration, Nature-based-solution Initiative, Dam Removal Europe.
 - Link to NBS CoP: as one of the activities, we will contact the leaders of networks/working groups and invite them to present their work on NBS in our CoP.

3. Target audience and value

Target audience

Community will be open and promoted globally among all stakeholders interested in NBS in water management. Full access to the community is granted through simple registration process. In order to ensure the maximum engagement and active participation in the community, **special emphasis will be put on engaging with the following primary target audience:**

- **Researchers** and experts from academic and research institutions, *expert representatives* of relevant NGOs dealing with water challenges...
- **Practitioners** from private and public sector: local authorities, consultants, technicians, planners (urban, water, agriculture, land management) ...
- **Project managers** working on projects related to NBS in water management

Specific targeted communication will be carried out based on the topic that will be given *special attention* to ensured focused discussions (see *initial three suggested topics as defined in the previous section*).

Other audience might include:

- Youth (young professionals, students)
- Other representatives of public authorities
- Other actors from the civil society
- Any other actor with an interest in NBS in water management

Value of the community:

Based on the interviews and survey, several needs from the potential target audience have been identified, that the CoP could respond to. The consultations also clearly affirmed that such CoP is needed and would bring an added value to the issues related to NBS. Depending on the stakeholders' profile, the CoP will have to provide different values. For example:

FOR RESEARCHERS (dealing with research, analysis, investigations, monitoring related to NBS and related regulations):

- to have the possibility to exchange, discuss, debate on concrete challenges related to NBS in water management with other experts and sectors.
- To discuss the results on multifunctional performance of NBS (cross sectoral effects).
- To disseminate results of their work by sharing news, reports, expert and scientific articles within the community.

FOR PRACTITIONERS (developing strategies and planning for NBS, providing technical designs, implementation and consulting on NBS):

- To learn from others experiences with the development of NBS.
- To learn about innovative NBS technologies, their design, implementation practices (do's and don'ts), maintenance and lessons learned from past projects.
- To showcase good examples and promote their work.
- To find new business opportunities (spin offs, internationalization, starting new implementation projects).

FOR R&D PROJECTS AND OPERATING NETWORKS:

- to have possibility to disseminate results from ongoing projects and gain transferability.
- to have the possibility to continue networking after the project end and gain durability.
- To discuss new project ideas and to build on the CoP in their project activities.

FOR OTHER INTERESTED INDIVIDUALS:

- to learn about NBS concepts, multifunctional benefits, and experiences.
- To have a global perspective on the topic – cross-regional exchange, learning from each other.
- Networking.

4.CoP activities

Suggested activities have been developed, based on the outcomes from the survey and interviews. They will be confirmed and further elaborated with the focus group during the online meeting in September/October 2022. Concrete implementation scenarios, including timeline, detailed content considering the different audiences and topics in focus, will then be developed.

The following activities are suggested, structured as per the technical structure of the GWP Toolbox communities pages (i.e., blog, events, materials, opportunities and discussions):

1. Blogs:

- a. Sharing interesting news from other websites (e.g., LinkedIn group Treatment Wetlands and NBS; oppla; naaturebasedsolutions initiative.org) - monthly
- b. Presenting research projects (e.g., H2020 OPTAIN, H2020 EdiCitNet, COST Circular City) - 4 times per year
- c. Reports from international congresses and conferences (e.g., IWA World Water Congress, Int. Conference on wetland systems for water pollution control) - after an event
- d. Other blogs produced by community members (e.g., EU investments into NBS) - 4-times per year

2. Events:

- a. Webinars (e.g., NBS for wastewater treatment; small water retention measures, presentation of selected NBS platforms, tools and case studies) - 2-4 per year
- b. Coffee talks (e.g., real-scale NBS in cities, wastewater reuse) - 2-4 per year
- c. Interview with an expert - 2-4 per year
- d. Online survey (e.g., awareness on NBS and gaps for implementation, diversity of NBS) - 4 per year

3. Materials:

- a. Newsletter (all posts from Blogs, Events, Materials, Opportunities and Discussion gathered and send around via e-mail) – 4 time per year
- b. New articles and reports produced by members (e.g., presenting small water retention measures and link to the platform) - 2 per year
- c. Existing reports and studies produced by the members of the community (e.g., Sustainable sanitation task force reports, interesting deliverables from projects related to NBS for water) - materials are uploaded simultaneously with blogs, events or discussions on that topic

- d. Existing scientific books and articles produced by members of the community (e.g. IWA book on NBS for wastewater treatment, Sustainable sanitation task force handbook, scientific papers produced in COST Circular City)
- e. Sharing links to relevant projects' platforms and websites.

4. Opportunities:

- a. Calls to CoP members to present their work (e.g., a call for case studies to be presented in the toolbox, a call to prepare a webinar)
- b. Enrolment in e-courses organised by community members (e.g., COST Circular City e-course; aquaponics e-course) - when new sessions of course start
- c. Enrolment in summer schools organised by community members – when relevant
- d. Sharing announcements of expert and scientific conferences – when relevant
- e. Announcement of international calls/tenders concerning NBS – when relevant
- f. Announcements of job opportunities, PhD, postdoc studies related to NBS in water – when relevant
- g. Competitions for members (with symbolic price) (e.g., photo competition) - 2 per year

5. Discussions – online forum:

- a. Opening new discussions by CoP managers (e.g., implementation of EU regulation on water reuse, existing discharge limits for wastewater treatment, integration of NBS into national strategies) - 4 times per year
- b. Opening discussions after CoP events to continue communication – after each event
- c. Discussions related to announced opportunities and uploaded materials – when needed
- d. Other discussions launched by CoP members

5. Operating model

Roles and share of tasks

COMMUNITY MANAGER: will be responsible for the overall organization and moderation of the CoP, promotion of the CoP, its implementation and monitoring of success based on selected indicators as well as communication with news members and support to core group members. Community manager will conduct all horizontal activities such as polls, surveys. He/she will also support the content manager in preparation of specific activities and will be active in participation in debates.

CONTENT MANAGER: The content manager will be responsible to conduct activities as planned by the activities schedule. Additionally, the content manager will be in charge to control the high quality, accuracy, relevance and attractiveness of the activities. When needed, the content manager will support core group members at developing their contents. The content manager will regularly communicate with core group members on developing the contents and with external experts when they will be invited to specific activities (e.g. webinars).

CORE GROUP MEMBERS: core group members will keep the community active and will participate in the development of the community content (blog writing, participation at webinars, initiation and moderation of debates). We expect that each topic should have 2-4 members with rotating leading role (e.g. every 4 months) that should take 2-6 hours to month. *Identification and specific roles of the core group members will be defined at the focus group meeting.*

CoP MEMBERS: depending on their interests and motivation, and at different times, they will take on an active role or be rather observers. Activities may include participation in debates, joining events / presenting, sharing news, promoting the CoP in the frame of their organizations or projects they are involved in or encouragement to other stakeholders to join the community.

NON-MEMBERS: some content will be available without registration.

Initially community manager, content manager and core group members will dedicate a lot of energy to initiate and animate discussions and prepare the content. It is expected that other members progressively become more and more pro-active – starting debates, sharing news, networking on relevant topics. The goal is that more and more members become active and that the CoP becomes self-sustainable.

Communication with members and promotion of the CoP

With core group members: regular communication is foreseen. This will be ensured through on-line meetings which will take place based on the time-plan of the activities. Additionally, community and content manager will always be available for any accelerations or doubts via other communication channels (e.g., email).

With other members: communication via community to announce specific events and activities and regular updates via email/newsletter to be informed what is new in the community.

All communication will be carried out in English, but the CoP allows automatic translation to any language (google interface) allowing participation beyond any geographical limits.