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### Regional Workshop #2



- Background note -

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### Note to the reader

This note was prepared by Gloria De Paoli, ACTeon, Gonzalo Delacámarra and Estefanía Ibáñez (IMDEA).

For any comment or clarification please contact:

Estefanía Ibáñez, IMDEA: [estefania.ibanez@imdea.org](mailto:estefania.ibanez@imdea.org)

Gloria De Paoli, ACTeon: [g.depaoli@acteon-environment.eu](mailto:g.depaoli@acteon-environment.eu)



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## 1. The context

### a. The NWRM initiative in a nutshell

Within the context of Green Infrastructure Policy<sup>1</sup>, the European Union has shown an increasing interest in NWRM measures that aim to restore and enhance the functioning of natural processes and ecosystems by increasing soil and landscape water retention and groundwater recharge. These can represent cost-effective options for achieving the objectives of the Water Framework Directive (WFD) or the Floods Directive (FD).

The important role of NWRMs is highlighted in the "Blueprint to Safeguard Europe's Water Resources" (COM (2012) 673). According to the Blueprint, the uptake of NWRMs in the next WFD planning cycles should be promoted through guidance and other actions, and these measures should be included in RBMP investments plans.

The new CIS Work Programme, which builds on the Blueprint proposals, includes the development of a "*Guidance or other tool on Natural Water Retention Measures by 2014*" under the mandate of the Working Group Programme of Measures (WG POM).

In this context, DG ENV has launched a dedicated study entitled **Pilot Project - Atmospheric Precipitation - Protection and efficient use of Fresh Water: Integration of Natural Water Retention Measures in River basin management**. This study aims to **contribute to the WFD CIS** and to **identify or create operational tools** that can be used at national, river basin, and/or local level to facilitate inclusion of NWRMs in the 2<sup>nd</sup> or 3<sup>rd</sup> RBMPs and FRMPs.

This study has a dual aim:

- To develop a sound and comprehensive **European (web-based) knowledge on NWRM**. The knowledge base structures available information on technical, environmental, socio-economic, governance and implementation aspects of NWRM: this will allow for a detailed assessment of effectiveness, costs and benefits, and financing issues, as well as for further development of a catalogue of measures and case studies. Existing practical experiences, studies and stakeholders' knowledge is being mobilized. The knowledge base is taking contributions from previous and parallel studies on NWRMs and related interventions (e.g. river restoration).

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<sup>1</sup> <http://ec.europa.eu/environment/nature/ecosystems/>



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- The creation of operational tools must involve local practitioners, river basin managers, stakeholders, scientists, technical experts, and policy developers to increase the chance of such tools being deployed in river basin planning. To this aim, the pilot project is contributing to the development of a **European NWRM “community of practice”** by bringing together all parties interested in the design and implementation of NWRM in the context of the planning process of the WFD, the FD, the development of climate change adaptation strategies, or the establishment of sustainable urban plans. This is being achieved by the development of **four informal regional networks**: the Danube river basin, the Mediterranean Sea region, Northern Europe/the Baltic Sea and Western Europe. These networks were defined on the basis of similarities in bioclimatic, hydromorphological and water management conditions, although they do not have strict geographic boundaries and may overlap (they actually do). They also include non- EU countries (mostly candidate countries).

In close interaction with NWRM practitioners and experts, the initiative will ultimately produce a **NWRM practical guide** that can **support the design and implementation of NWRM** in Europe. The contents and progress so far with the practical guidance are presented in a separate background document.

## b. The regional workshops

Strongly related to the regional networks (Baltic, Danube, Western and Mediterranean), the regional workshops represent a key opportunity to address NWRM challenges, to get feedback, and to pool expertise and inputs from water stakeholders.

The first round of Regional Workshops (held in January 2014) was very effective in providing a shared overview of NWRM definition, main features, main water management issues to be addressed and implementation challenges and experiences in the four regions.

The second round of Regional Workshops started in June 2014 with the Baltic Workshop (Gimo, Sweden), followed by the Danube (Bucharest, Romania) and the Western (Strasbourg, France) workshops. The Mediterranean Workshop (Turin, Italy), is the last workshop of this second round, which has proved to be an opportunity of moving one step ahead and gaining a deeper insight on **core water management issues and related NWRM applications** in the four regions – or, in other words, on core themes.

## 2. NWRMs: the need for a multi-dimensional approach

Presentations and discussions in the four workshops highlighted some common key features, constraints and success factors with respect to NWRM implementation. The figure below illustrates such key aspects, as well as the relationships among them.

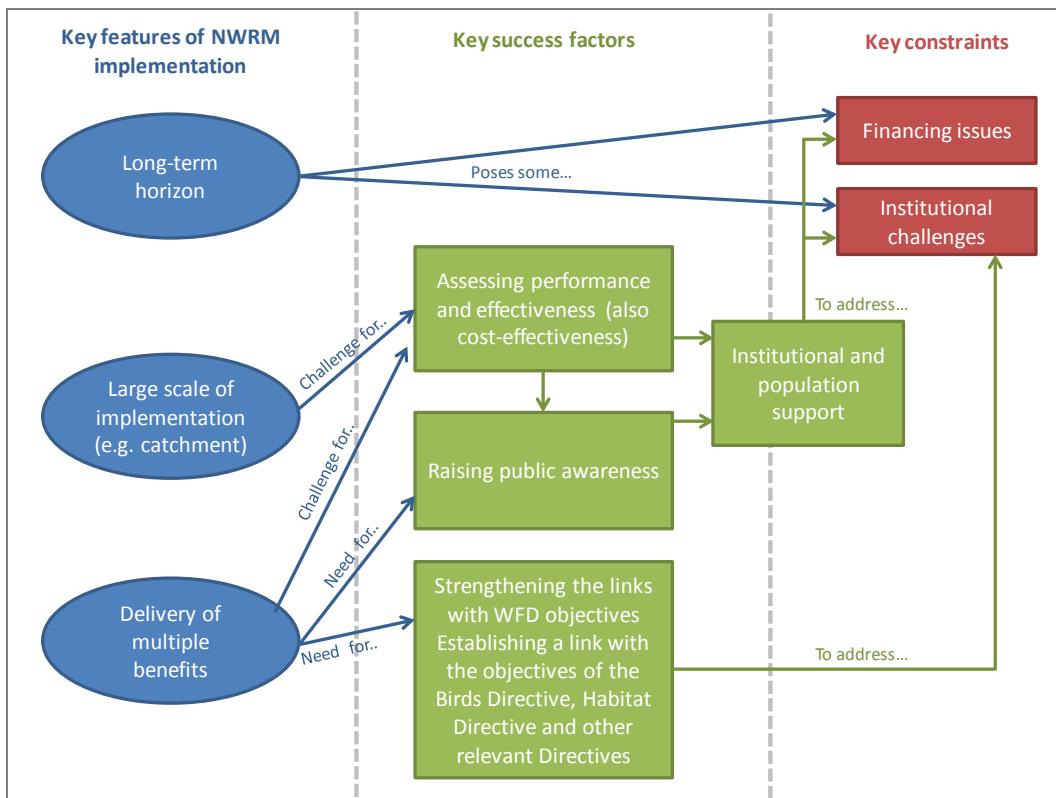


Figure 1 · Key common aspects of NWRM implementation in the four regions

NWRMs have a **long-term planning horizon**, and this often results in a lack of institutional and financial support. **Financing issues** arise, in particular, when it comes to maintenance costs. Some measures can indeed be self-sustainable, but in many cases maintenance is needed over a long period of time: if this is the case, there is the need for long-term agreements and/or specific funding mechanisms.

The geographical scale is a crucial aspect of NWRM implementation: in most cases, the **catchment scale is key**, as individual measures may have little effect, and it is rather the cumulative effect of measures appropriately situated throughout a catchment that is relevant when considering benefits.



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This large application scale, however, poses some **challenges** when it comes to **assessing the performance and effectiveness of measures**: the benefits are often widespread, and often interventions in one place generate benefits elsewhere (normally downstream).

A second challenge with respect to assessing NWRM performances relates to the fact that NWRMs provide **multiple benefits**, which go well beyond water retention itself and include, for example, water quality improvement, biodiversity improvement, enhancement of soil features, better ecosystem adaptation capacity to climate change and so on. If some of the multiple benefits are overlooked or unknown, **NWRMs might not appear cost-effective**, and thus key stakeholders might not have an incentive to engage in NWRM implementation. Measuring those benefits is a challenging task, and in fact most of the discussions highlighted the **need for a better knowledge about multiple benefits** and their values. At present, evidence on effectiveness mostly refers to design conditions, and few projects assessed NWRM contributions to water policy objectives. This knowledge is the key for highlighting and demonstrating the cost-effectiveness of NWRMs, which at the moment is still debated. Furthermore, NWRM can also have controversial impacts, so that both pros and cons of NWRMs must be assessed.

Building a **strong evidence base** on NWRM performance and, especially, on their **cost-effectiveness**, is perceived as a crucial step to induce a change in the policy processes and in public awareness. **Legislative and policy support**, as well as **social acceptance**, are key success factors for the implementation of NWRMs. Gaining institutional support can also ensure **financial support**, for example through the establishment of appropriate funding mechanisms. Promoting multiple benefits, in particular, is key to ensure such support –provided that such multiple benefits can be demonstrated.

Understanding the multiple benefits of NWRMs would also help in strengthening the links with all relevant EU Directives. These links appear even more evident if one thinks about the multi-dimensionality of NWRMs, which include both interventions on rivers but also on floodplains and riparian areas throughout a catchment. At present, a **link can often be made between NWRMs and the implementation of the Flood Directive**, and in a very few cases the Water Framework Directive was the main driver for implementation. This Directive, in fact, does not give much direct attention to riparian issues, but rather focuses on the water body as a central concept, and this might be hindering a good approach to NWRMs. The link between forestry measures and the WFD, for example, needs to be clarified, as such measures are rarely on water bodies. Overall, **an explicit link with the WFD needs to be made**. The multi-dimensional character of NWRMs also calls for a **full integration** not only of FD and WFD, but also of the **Bird and the Habitat Directives and other relevant Directives**, and this suggests that a more complex approach would be needed. An



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integration of all relevant EU Directives could also help **addressing current institutional challenges**.

### 3. The second Mediterranean Workshop

#### a. The concept

NWRM may be good on their own (if appraised individually, which does not make much sense) because they help restore the environment and ecosystem functions and services. Yet, self-evidence of advantages tends to ignore the existence of alternatives that may serve the same purpose and to overlook the opportunity cost of resources. Therefore, besides their rationality for nature restoration, NWRM need to be judged against their potential contribution to other policy objectives (WFD, FD, EU 2020 Biodiversity Strategy, CCA strategy, CAP reform, Habitats Directive, Birds Directive, etc.). At the end of the day, NWRM advantages are better captured within integrated programmes of measures, such as those that are designed and implemented as part of the planning cycles of the WFD and the FD.

As part of 'successful stories', sometimes purely financial reasons would suffice. NWRM might be cost-effective alternatives to attain particular objectives (improving the status of water bodies, mitigating flood risks, etc.). Yet, costs other than purely financial ones may be more relevant in most cases (notably in upstream-downstream relationships). Thus, as important as putting the right incentive in place is also to avoid prevailing ones (and environmentally harmful subsidies).

In addition trade-offs should not be neglected. Changing land-use practices entails opportunity costs. Not only benefits are characteristic of NWRM; specific costs could also be relevant. What should then be financed and what not? Who should pay? The assessment of trade offs allows to identify who wins and who loses and to figure out the required incentives to make NWRM acceptable and implementable.

And what is most important: if in addition to water management NWRM serve many other purposes (i.e. their multi-benefit dimension), how should then these measures be financed?

#### b. The objectives of the workshop

This workshop has been designed both to link NWRM to different policy challenges (including those framed by the Water Framework Directive and the Floods Directive) and also to emphasise on the multi-benefits of these measures, as linked to different policy aims (natural flood management, drought risk mitigation, biodiversity conservation, climate change adaptation, etc.).



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To achieve this, the workshop will be highly interactive, and structured around the following activities:

- **Presentations** followed by moderated discussions;
- **Group sessions to work on a real-life case study:** participants will need to find solutions for specific issues encountered in the planning and implementation phases, using a case study as working example. Building on case study knowledge, the groups will go through the key steps of design and implementation of NWRMs (steps proposed in the Practical Guidance). Discussions will identify key implementation issues and possible solutions/ steps to boost NWRM effectiveness in delivering multiple objectives;
- **Thematic groups sessions** with focused presentations, followed by facilitated discussions. Three groups will learn and discuss about key themes linked to NWRM, and namely: (i) NWRM within the context of climate change adaptation (CCA); (ii) NWRM within the context of disaster risk reduction (DRR); and (iii) NWRM as a catalyst for policy co-ordination;
- **Policy panel:** a round-table discussion will be led by policy makers dealing with the implementation of NWRM-related directives and strategies at the EU and MS level, focusing on inputs for the WFD CIS process.

A **second objective** will be **to receive participants' feedback on the practical guidance**, which is being produced within the NWRM initiative. An insight on the logical steps for designing and implementing NWRMs proposed in the guidance will be provided at the beginning of the workshop. On the second day, just before closing the workshop, participants will discuss how the key messages emerging from the workshop can feed into the practical guidance, building on activities and experienced shared during the workshop.

### c. Workshop' s participants

The Second Mediterranean Workshop will engage participants from all countries of its community of practice: Portugal (despite being an Atlantic country), Spain, (southern) France, Italy, Malta, Greece, Cyprus, and Croatia (which is also part of the Danube regional network). Besides, there will be relevant contributions from Turkey.

Participants have been invited according to the main topics to be discussed during the workshop, their expertise on NWRM, and their involvement in the NWRM initiative. In particular, participants to the workshop are:

- Water catchment managers (from the water planning units), directly working on the WFD implementation.



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- Practitioners dealing with NWRM implementation on the field;
- Researchers and academics working on NWRM issues;
- Environmental protection organizations.