



Pilot Project on Natural Water Retention Measures

2nd Regional Workshop (Western Network), 1-2 July 2014, Strasburg

Linkages between NWRM and relevant EU directives/policies

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Natural Water Retention Measures

Definition discussed by the CIS/WG PoM-drafting group on NWRM

Document to agenda point 5a at the CIS-WG PoM 14 March 2014:

Natural Water Retention Measures (NWRM) are **multi-functional measures** that aim to protect water resources and address water-related challenges by restoring or maintaining ecosystems as well as natural features and characteristics of water bodies using **natural means and processes**.

The main focus of applying NWRM is to enhance the retention capacity of aquifers, soil, and aquatic and water dependent ecosystems

with a view to improve their status. Appropriate application of NWRM supports **green infrastructure**, improves the quantitative status of water bodies as such, and reduces the vulnerability to **floods and droughts**. It positively affects the **chemical and ecological status of water bodies** by restoring **natural functioning of ecosystems and the services** they provide. The restored ecosystems contribute both to **climate change adaptation and mitigation**.

Natural Water Retention Measures

NWRM can contribute to the achievement of the objects of different EU directives and policies, i.a.:

Policies/Strategies

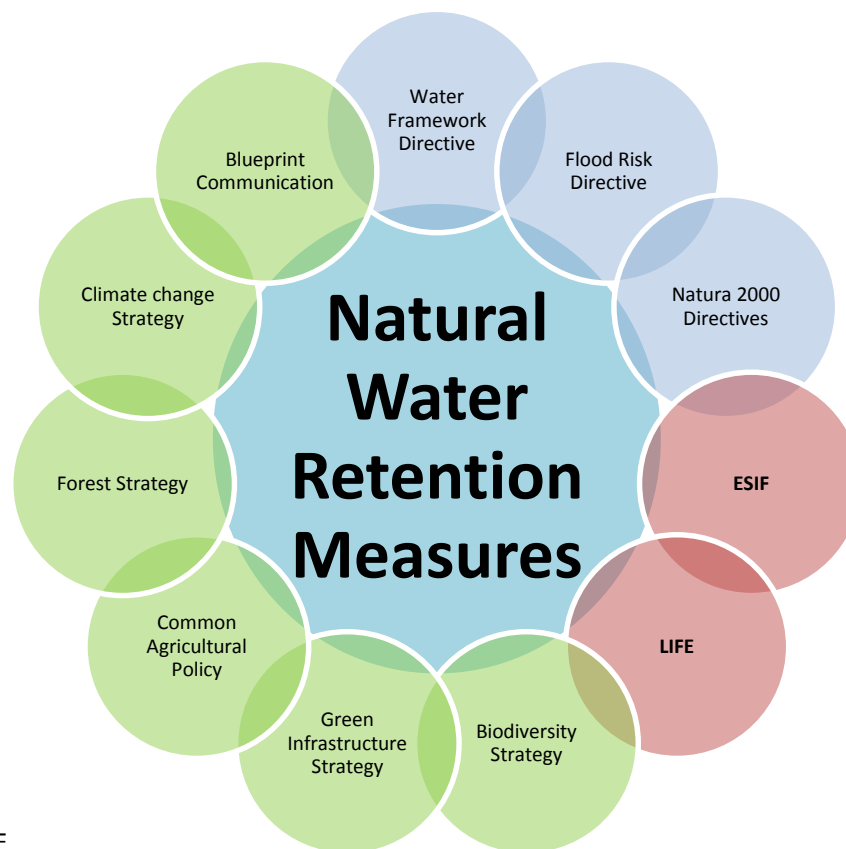
- Blueprint Communication (2012)
- EU Biodiversity Strategy to 2020 (2011)
- Green Infrastructure Strategy (2013)
- EU Strategy on adaptation to climate change (2013)
- [Communication on Water Scarcity and drought (2007/2012)]
- A new EU Forest Strategy (2013)
- Common Agricultural Policy (2013)
- [7th Environment Action Program (2013)]
- [Roadmap to a Resource Efficient Europe (2011)]
- [Europe 2020 Strategy (2010)]
- ...

Directives

- Water Framework Directive (2000)
- Flood Risk Directive (2007)
- Birds & Habitats Directives (1979/1992)
- [Nitrates Directive (1997)]
- [Marine Strategy Framework Directive (2010)]
- [Groundwater Directive (2006)]
- [Drinking Water Directive (1998)]
- [Urban Waste Water Treatment Directive (1991)]
- [Priority Substance Directive (2008)]
- [Bathing Water Directive (2006)]
- ...

Funding

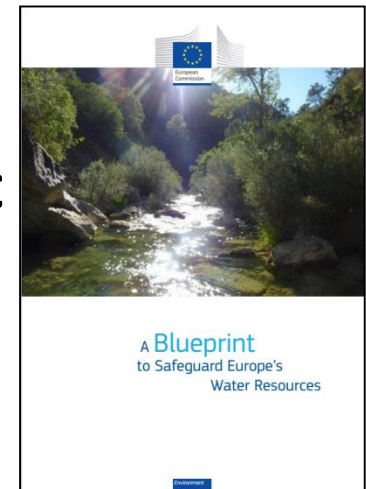
- EU Structural and Investment Funds (ESIF), i.a. ERDF, EAFRD, EMFF
- LIFE 2014-2020
- ...



Blueprint to Safeguard Europe's Waters (I)

“Need for better implementation and **increased integration** of water policy objectives into other policy areas”

“The main **causes** of negative impacts on water status **are interlinked**. These include climate change; land use; economic activities such as energy production, industry, agriculture and tourism; urban development and demographic change.”



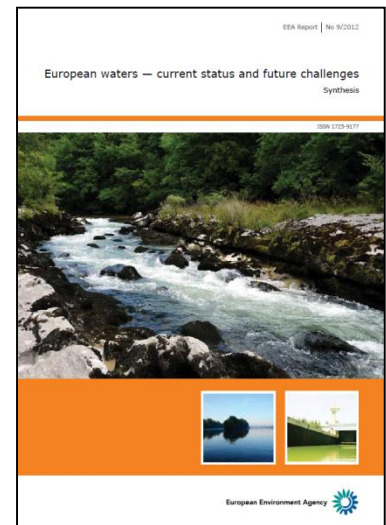
Blueprint to Safeguard Europe's Waters (II)

- Importance of GI for reducing the impacts of floods, droughts, and land use related pressures.
- Highlight measures that can greatly contribute to limiting the negative effects of floods and droughts: GI, particularly **natural water retention measures (NWRM)**.
- Proposes that Member States expand **NWRM** using the RBMPs and FRMPs that require an **integrated approach to managing water resources** across policy areas and sectors.
- Prioritise **funding** of natural infrastructures and ecosystem based adaptation for the water sector in the ESIF and change conditionalities, such as greening of the CAP.

Water Framework Directive (I)

Objective: Good status of water bodies

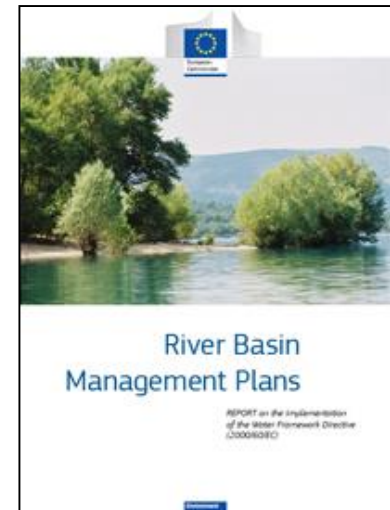
- Good ecological status is currently achieved in 42 % of the reported European freshwater bodies and is expected to increase to 52 % by 2015 (EEA Report 1/2012).
- Hydro morphological alteration and diffuse pollution are still the most significant reasons.
- Measures implemented until now have been insufficient.
- Main causes are interlinked: they include climate change; land use; economic activities, agriculture tourism; urban development and demographic change.



Water Framework Directive (II)

River Basin Management Plans/Programmes of Measures:

- NWRM especially to improve hydromorphology
- More room for the rivers
- Compliance with standards and objectives of protected areas



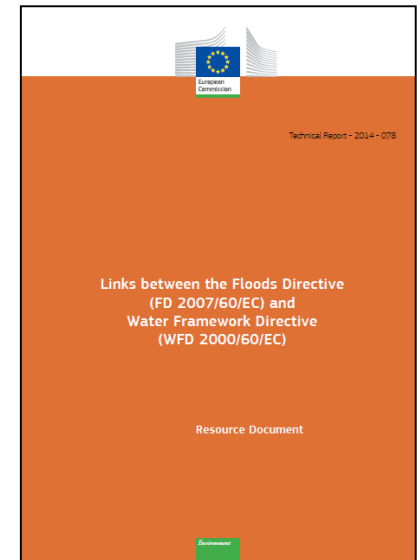
WFD Reporting Guidance 2016:

- NWRM as Key Type Measure (No 23)
“WinWinNWRMDroughtsFloodsReference”

Flood Risk Directive (I)

Objective: Minimise flood risks

- *Obligation to coordinate with WFD-implementation (Art. 9 FD)*
- EU Commission: NWRM could be a better environmental option for Flood Risk management
- Contribution to CC adaptation
- Resource Document “Links between the FD and WFD”
- Case by case evaluation



Flood Risk Directive (II)

Synergies FD/WFD:

- NWRM as alternatives to grey infrastructure, need to planned jointly.
- A catalogue of prioritized measures according to the WFD and/or FD to identify synergy effects between measures under the directives.

Institutional Integration:

- Often the same competent authorities and management units as for WFD implementation.



Birds & Habitats Directives

Objective: Protection and restoration of species and habitats

- Conservation and restoration of wetlands, peat lands & floodplains classified as NWRM.
- “Win-Win”-measures as far as possible, e.g. dyke relocation “Lenzener Elbtalauen”:



EU Biodiversity Strategy to 2020

Objective: Stop loss of Biodiversity by 2020

- Fully implement the Natura 2000 Directives: ...further integrate protection & management into key land and **water use policies**.
- Maintain and restore ecosystems and their services by establishing green infrastructure.



Green Infrastructure Strategy

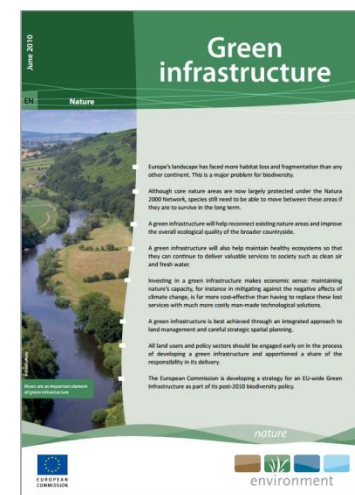
Key step in implementing the EU Biodiversity Strategy

Objective: To increase resilience and to reduce the vulnerability to natural disaster risks

(e.g. floods, water scarcity and droughts, coastal erosion, ...)

- Enhance water related (ecosystem) services: natural water purification, regulating water outputs from catchments, and flood mitigation, groundwater recharge e.g.

rivers and water courses, including flood-plains, fens, riparian forests and mountains.



Climate Change Adaptation Strategy

Objective: Contribute to a more climate-resilient Europe by i.a. promote action by Member States

Action 2: Provide LIFE funding: adaptation particularly in vulnerable areas: i.a. cross-border management of floods, fostering collaborative agreements based on the EU Floods Directive and sustainable management of water; combating desertification and forest fires in drought-prone areas.

- „Uncertainties call for a strong emphasis on incorporating win-win, low-cost and no-regret adaptation options.”
- NWRM are mostly no-regret measures for adaptation in a changing climate.
- Water Directors: The impact of climate change and adaptation become a topic in the RBMPs/PoMs of 2nd cycle



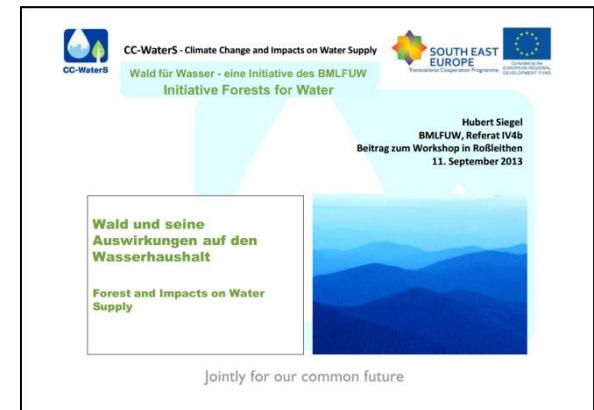
A new EU Forest Strategy (I)

Objective: protect forests and biodiversity from the significant effects of ..., scarce water resources,...

Forests also mitigate the impact of ... water run-off.

- Priority area: *Protecting forests and enhancing ecosystem services*

MS should maintain and enhance forest cover to ensure ..., water quality and quantity regulation by integrating sustainable forestry practices in the PoMs of RBMP under the WFD and in the Rural Development Programmes;



A new EU Forest Strategy (II)

Waldklimafonds

German Forest Climate Fund started in 2013

Funding Guidelines:

1. Adaptation of Forests to Climate Change

The restoration of a balanced, natural area, typical landscape water balance, e.g. by securing or raising the groundwater level, increasing the water retention potential of forest soils with their carbon storage capacity, reduction / delay of surface runoff.

Protection, preservation and restoration of peat lands in the forests as well as bog forests.

The restoration, redynamisation and reinvestment of natural or nature friendly used bog and moist forests. These includes, e.g. dismantling of drainage and drainage facilities, the construction of facilities for **natural water retention**, plantations to renaturation of bog, floodplain and moist forests.

Info: www.waldklimafonds.de

The Common Agricultural Policy 2014-2020

Objective: Sustainable management of natural resources, and climate action (Greening)

- Permanent grass land, crop diversification and “ecological focus area” (5%)
- **Cross compliance:** incorporating the WFD and the Sustainable Use of Pesticides Directives
- **Rural Development:** improving water management, incl. fertiliser and pesticide management; increasing efficiency in water use, advisory services to farmers

2014 Report of the European Court of Auditors:

Commission and MS have only be partially successful in integrating WFD objectives into the CAP



LIFE Regulation 2014-2020

Integrated Projects:

- Priority area Environment and Resource Efficiency
- Large territorial scale, complementary actions with additional co-funding; involvement stakeholders, plans or strategies required by specific EU environmental legislation
- Priority will be given i.a. to the following projects:
Water, floods and drought
Annex III (a)

LIFE Regulation Annex III

(a) **Thematic priorities for Water, including the marine environment:** activities for the implementation of the specific objectives for water set out in the Roadmap for a Resource-Efficient Europe and the 7th Environment Action Programme, in particular:

(i) integrated approaches for the implementation of Directive 2000/60/EC of the European Parliament and of the Council ⁽¹⁾;

(ii) activities for the implementation of the Directive 2007/60/EC of the European Parliament and of the Council ⁽²⁾;

(iii) activities for the implementation of the programme of measures of the Directive 2008/56/EC of the European Parliament and of the Council ⁽³⁾ with a view to achieving good environmental status of marine waters;

(iv) activities to ensure safe and efficient use of water resources, improving quantitative water management preserving a high level of water quality and avoiding misuse and deterioration of water resources

LIFE multiannual work programme 2014-17

Objective: develop, test and demonstrate policy or management approaches, best practices and solutions, e.g.:

- Planning and establishment of **natural water retention measures** that increase infiltration, storage of water and remove pollutants through natural, or 'natural-like' processes and thereby contribute to the achievement of the WFD and the FD objectives ...

Conclusions

As NWRMs are (often)

- multi dimensional,
- large scale (catchment),
- long term,
- multi beneficial and
- cost efficient projects,

further policy, legislative and institutional integration is needed.



Thank you!

- Thomas Borchers, German Federal Environment Ministry