



Pilot Project - Atmospheric Precipitation -Protection and efficient use of Fresh Water: Integration of Natural Water Retention Measures in River basin management

Service contract n°07.0330/2013/659147/SER/ENV.C1- DGENV

# NWRM features: an overview of the main outputs and outcomes of NWRM initiative

Benoît Fribourg-Blanc OlEau, Coordination team







## Main outputs / outcomes

Done so far

### **Catalogue of measures:**

- 53 measures so far (clustering in 4 land use groups)
- continuously adjusted by our experts (polder, mulching)

### **Workshops:**

- first series in January 2014 → awareness raising
- second series ongoing, focussed on NWRM implementation

#### **Case Studies collection:**

- 40 in-depth case studies
- light case studies (current 44, objective: 56)
- → If you have good cases on agriculture (strip/intercropping, early sowing, mulching, traditional terracing, on forestry (water sensitive driving, CCF, reservoir catchment, urban trees) send e-mail to contact@nwrm.eu



## Main outputs / outcomes

Under development

#### **NWRM** individual factsheets:

- 53 factsheets (1/measure) with cluster functions
- 53 knowledge base templates
- literature review + know-how: a knowledge base form gathering quantitative and qualitative data

### **Policy Questions:**

- literature review
- 12 synthesis documents (3 disciplines)

Exemple: Economic Assessment of NWRM

### **Platform for end-users:**

- targeting practitioners, managers, policy-makers
- friendly interface, linked to the database





## Last version of the catalogue of NWR Measures

- Based at the beginning on Stella study
- Revised by NWRM experts
- Revised by Steering Committee (JRC, EPA, DGENV, ...)
- Currently: list of 53 measures last update: polders and mulching





## Last version of the catalogue of NWR Measures

| 1 |   | 700                 | <u> </u> |                                             |                                       |                             |                                                                                 |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---|---|---------------------|----------|---------------------------------------------|---------------------------------------|-----------------------------|---------------------------------------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |   | Α                   | В        | С                                           | D                                     | Е                           | F                                                                               | G               | Н                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|   | 1 | NWRM ID             |          | NWRM                                        |                                       |                             |                                                                                 |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|   | 2 | (01/14)             | ID       | Sector                                      | Name                                  | Action                      | Biophysical<br>benefit                                                          | Technical skill | NWRM description/definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|   | 3 | A1                  | A1       | Agriculture                                 | Meadows<br>and<br>pastures            | Restoration,<br>Maintenance | Source Control,<br>Decrease of<br>runoff, Flood<br>protection                   | Planting        | Meadows are areas or fields whose main vegetation is grass, or other non-woody plants, used for mowing and haying. Pastures are grassed or wooded areas, moorland or heathland, generally used for grazing. Due to their rooted soils and their permanent cover, meadows and pastures provide good conditions for the uptake and storage of water during temporary floods. They also protect water quality by trapping sediments and assimilating nutrients.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|   | 4 | A2, A3,<br>A12, A13 | A2       | Agriculture,<br>Urban,<br>Nature,<br>Forest | Buffer strips<br>and shelter<br>belts | Restoration,<br>Maintenance | Source Control, Decrease of runoff, Biodiversity enhancement, Soil conservation | Planting        | Buffer strips are areas of natural vegetation cover (grass, bushes or trees) at the margin of fields, arable land, transport infrastructures and water courses. They can have several different configurations of vegetation found on them varying from simply grass to combinations of grass, trees, and shrubs. Due to their permanent vegetation, buffer strips offer good conditions for effective water infiltration and slowing surface flow; they therefore promote the natural retention of water. They can also significantly reduce the amount of suspended solids, nitrates and phosphates originating from agricultural run-off. Buffer strips can be sited in riparian zones, or away from water bodies as field margins, headlands or within fields (e.g. beetle banks). Hedges across long, steep slopes may reduce soil erosion as they intercept and slow surface run-off water before it builds into damaging flow particularly where there is a margin or buffer strip alongside. |
|   |   |                     |          |                                             |                                       |                             | Water quality                                                                   |                 | Crop rotation is the practice of growing a series of dissimilar/different types of crops in the same area in sequential seasons. It gives various benefits to the soil. A traditional element of crop rotation is the replenishment of nitrogen through the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



NWRM-list / List actions BP-benefits





U1 – Green roofs
Urban

53 NWRM knowledge base forms



N3 - Floodplain Hydromorphology

53 measures 4 sectors 53 individual factsheets

## **Agriculture**

**A1** – Meadows and pastures



**Forest**F5 – Land use conversion



**NWRM** 

## **Policy questions**

### - Objective:

Complementary to information on individual NWRM and implementation good case studies
 12 Policy

### 12 synthesis documents

grouped under 3 disciplines

**Biophysical and technical aspects** 

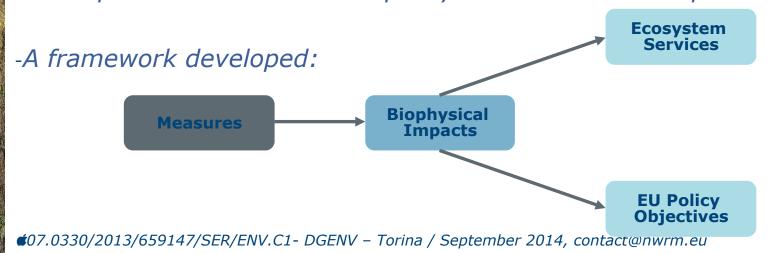
Socio-economic dimensions

→ subdivided in questions

Governance, implementation and financing

questions

Example: What is the role of policy coordination for implementing NWRMs?







## **Case Studies Collect**

## 40 in-depth

40 in-depth case studies



Case study template



In-depth case study factsheet template

56 light (2-3 per country)

56 light case studies

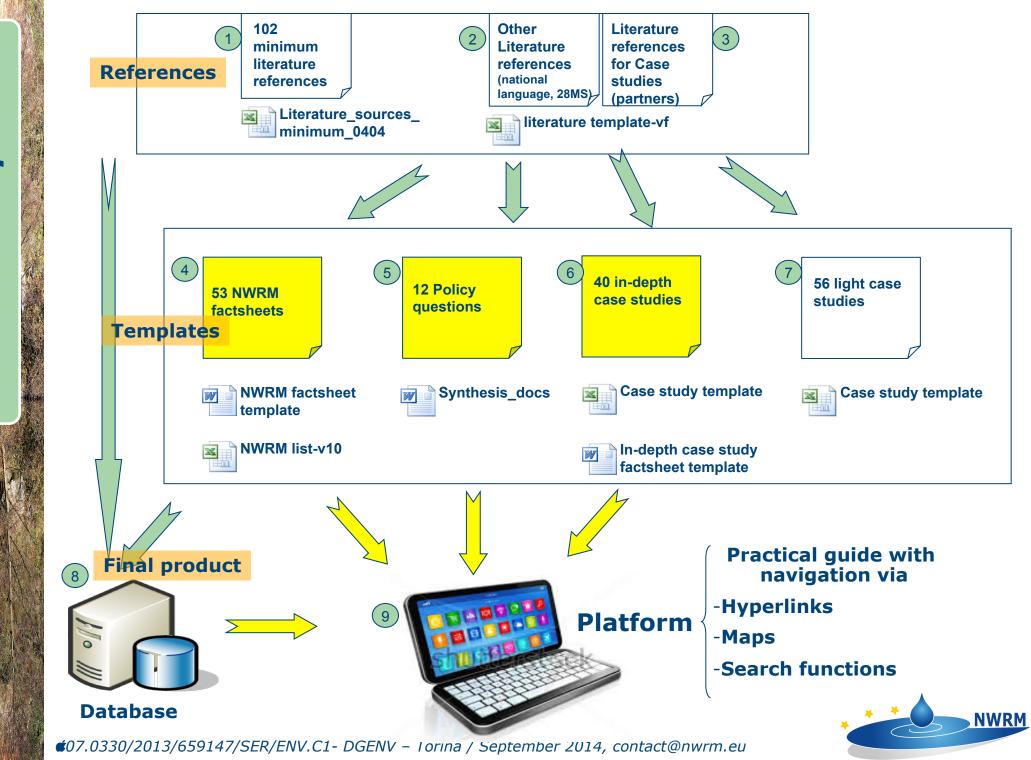


Case study template

## **Database**









## The platform

Main menu for access to different parts

NWRM Natural Water Retention Measures

Home How it works? About NWRM project Glossary Catalogue Contact

NWRM are:

Measures that aim to safeguard and enhance the water storage potential of landscape, soil, and aquifers, by restoring ecosystems, natural features, and characteristics of water courses and by using natural processes. MORE ABOUT

**Search tool** 

**Access to the catalogue** 

BROWSE NWRM CONCEPTS













Map locating case studies





## Thank you for your attention!

Benoît Fribourg-Blanc OlEau, Coordination team

