



Natural Water Retention Measures

**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

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**Web-based knowledge
Community of practice
NWRM practical guide**



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@nwrn.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 NWRM Measures

	A	B	C	D	E	F	G	H
1	NWRM ID	ID	Sector	NWRM			Technical skill	NWRM description/definition
2	(01/14)			Name	Action	Biophysical benefit		
3	A1	A1	Agriculture	Meadows and pastures	Restoration, Maintenance	Source Control, Decrease of runoff, Flood 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, A12, A13	A2	Agriculture, Urban, Nature, Forest	Buffer strips and shelter belts	Restoration, 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 improvement		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



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



Policy questions

- Objective:

- Complementary to information on *individual NWRM* and implementation good *case studies*

12 Policy questions

12 synthesis documents

→ grouped under 3 disciplines

Biophysical and technical aspects

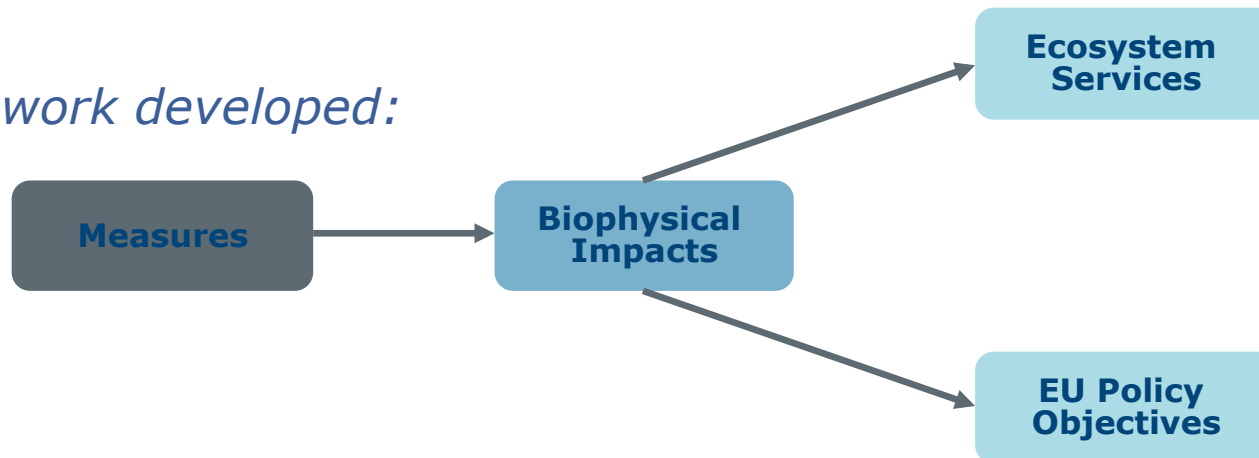
Socio-economic dimensions

Governance, implementation and financing

→ subdivided in questions

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

-A framework developed:



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)**

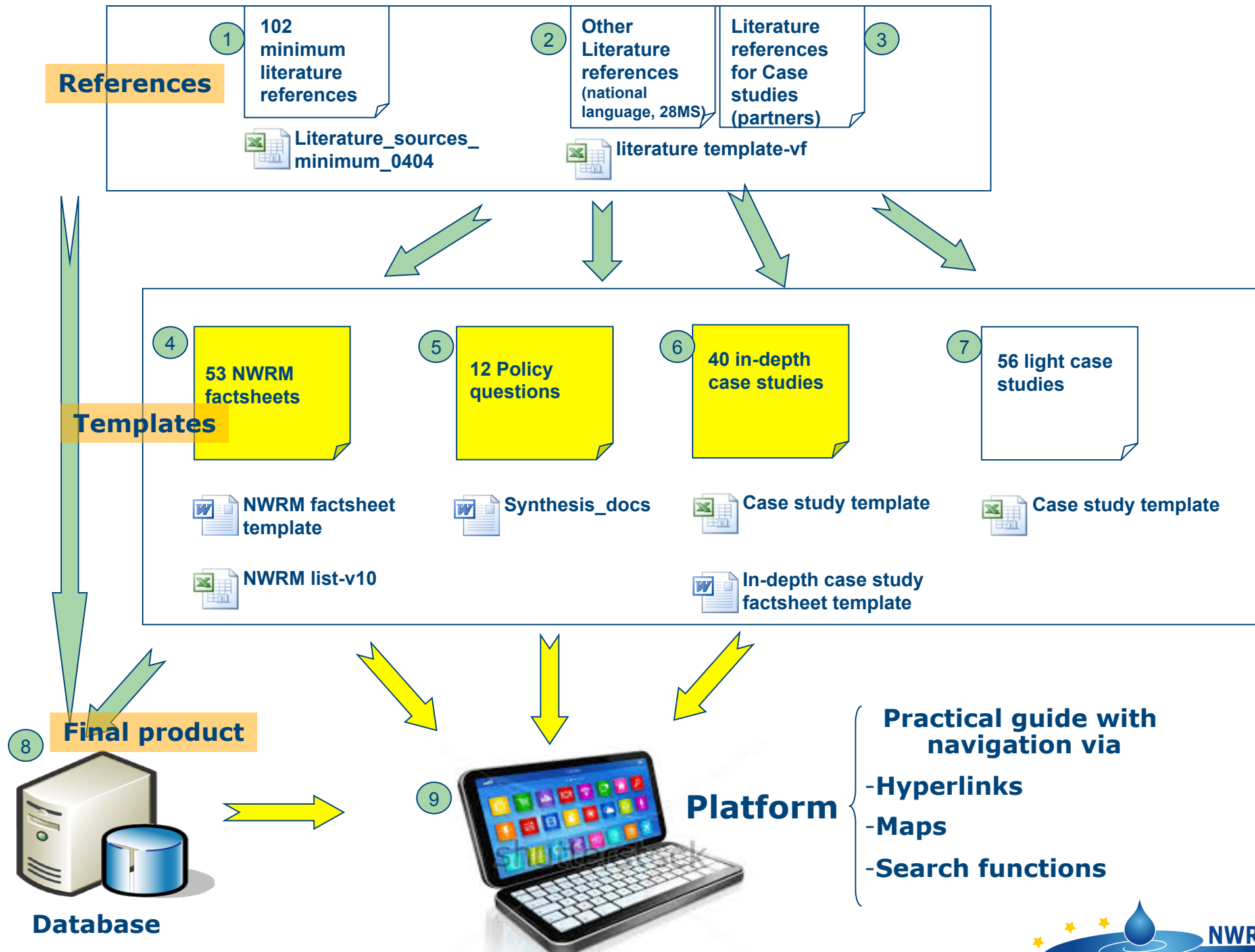
56 light
case studies



Case study template

Database





The platform

Main menu for access to different parts

Search tool

Access to the catalogue

Map locating case studies





Thank you for your attention!

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