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# NATURE BASED SOLUTIONS IN THE FRAME OF THE PROGRAMMES OF MEASURES OF THE RIVER BASIN MANAGEMENT PLANS

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Implementing partners



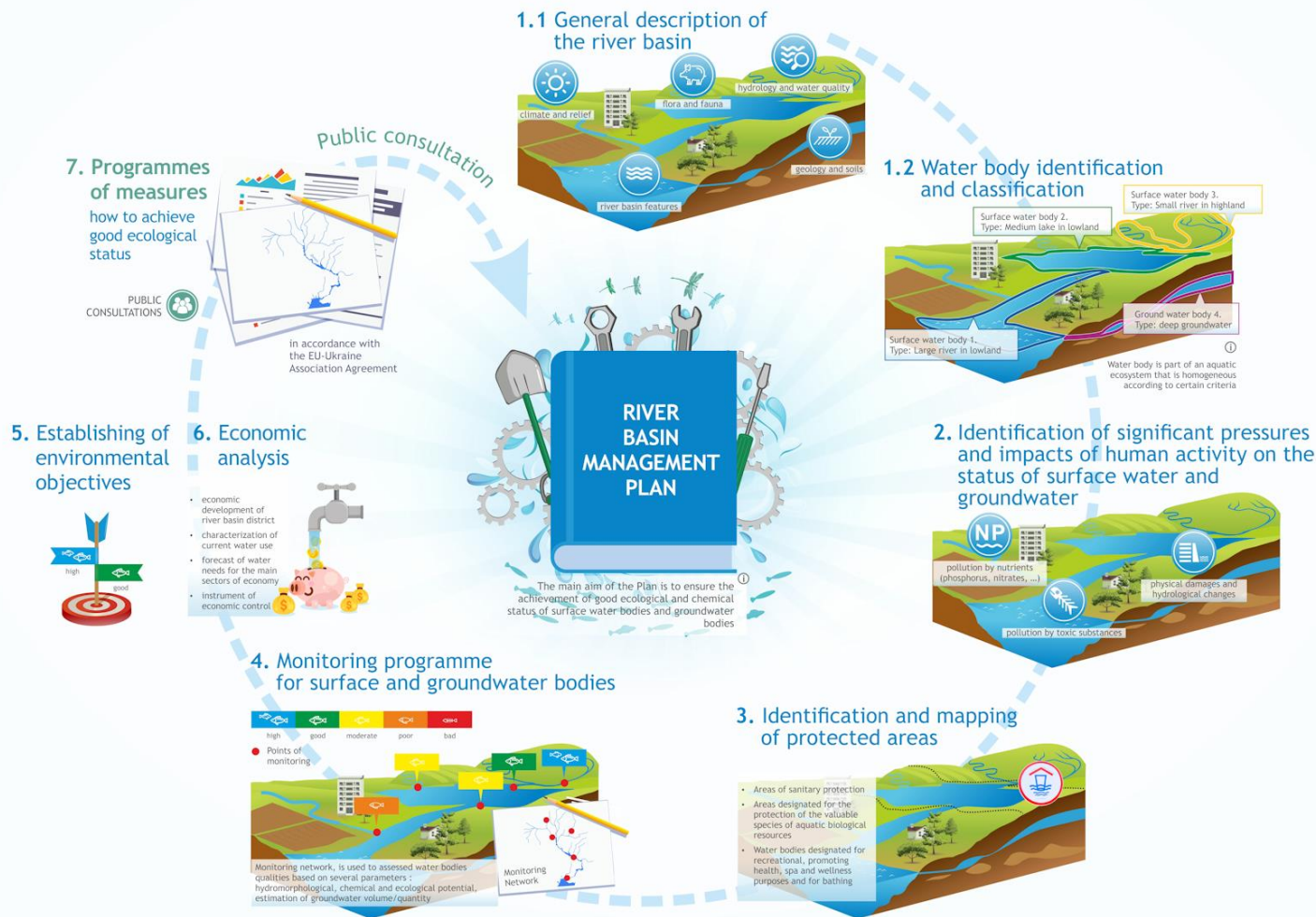
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# RIVER BASIN MANAGEMENT PLAN PROCESS





## IDENTIFICATION OF MEASURES

### Water Bodies delineation

- Rivers
- Lakes
- Transitional water
- Coastal water
- Groundwater

### Pressures analysis

- Point sources: urban waste water, industries;
- Diffuse sources: agriculture;
- Abstraction;
- Physical alteration;
- Etc.

### Risk assessment

- To identify the water bodies which are at risk of failing to meet the Environmental Objectives of the Water Framework Directive, either because they will not achieve good status or because their status is at risk of deterioration

### Programme of Measures

- To achieve the good status of water bodies
- Significant pressures mapped to Key Type of Measures
- Including Nature Based Solutions



## LIST OF KEY TYPES OF MEASURES (KTM)

KTM1 – Construction or upgrades of wastewater treatment plants

KTM2 – Reduce nutrient pollution from agriculture

KTM3 – Reduce pesticides pollution from agriculture.

KTM4 – Remediation of contaminated sites (historical pollution including sediments, groundwater, soil)

KTM5 – Improving longitudinal continuity (e.g. establishing fish passes, demolishing old dams)

KTM6 – Improving hydromorphological conditions of water bodies other than longitudinal continuity

KTM7 – Improvements in flow regime and/or establishment of ecological flows

KTM8 – Water efficiency, technical measures for irrigation, industry, energy and households

KTM9 – Water pricing policy measures for the implementation of the recovery of cost of water services from households

KTM10 – Water pricing policy measures for the implementation of the recovery of cost of water services from industry

KTM11 – Water pricing policy measures for the implementation of the recovery of cost of water services from agriculture

KTM12 – Advisory services for agriculture

KTM13 – Drinking water protection measures (e.g. establishment of safeguard zones, buffer zones etc)

KTM14 – Research, improvement of knowledge base reducing uncertainty

KTM15 – Measures for the phasing-out of emissions, discharges and losses of Priority Hazardous Substances or for the reduction of emissions, discharges and losses of Priority Substances

KTM16 – Upgrades or improvements of industrial wastewater treatment plants (including farms).

KTM17 – Measures to reduce sediment from soil erosion and surface run-off

KTM18 – Measures to prevent or control the adverse impacts of invasive alien species and introduced diseases

KTM19 – Measures to prevent or control the adverse impacts of recreation including angling

KTM20 – Measures to prevent or control the adverse impacts of fishing and other exploitation/removal of animal and plants

KTM21 – Measures to prevent or control the input of pollution from urban areas, transport and built infrastructure

KTM22 – Measures to prevent or control the input of pollution from forestry

KTM23 – Natural water retention measures

KTM24 – Adaptation to climate change

KTM25 – Measures to counteract acidification

KTM99 – Other key type measure reported under PoM



## KEY TYPES OF MEASURES (KTM) INCL. NATURE BASED SOLUTIONS

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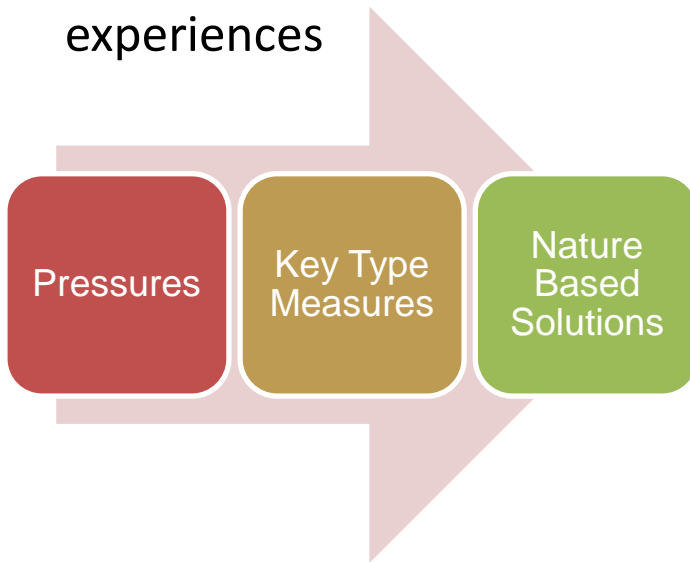
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## HOW TO LINK MEASURES AND NATURE BASED SOLUTIONS?

- Table of correspondance between pressures, Key Type of Measures (KTM) and Nature based Solutions (NbS)
- Template for the Programme of Measures
- Identification of unit costs from previous experiences



ID/N° Code of the measure
Significant Water Management Issues
<b>Measure Family/KTM</b>
Measure Name
Measure description
Technical description
<b>Nature based Solutions Type</b>
River Basin
Sub-basin
Administrative unit 1
Administrative unit 2
Type of water body
Water body code
Water body risk assessment
Ecological status (quantitative status for Groundwater)
Water body chemical status
Protected areas
Unit (inhabitant, m3, hectare, km, etc.)
<b>Unit Investment cost (€, etc.)</b>
Number of Units (basis for calculation)
Total Investment cost
Unit O&M cost
Total O&M cost (6 years)
Programme concerned
Sources of financing
Responsible authority
Deadline for implementation
Measure priority
Comments, source of information and data
Measure suggested by
Measure suggested on



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## RECOMMENDATIONS

- Preserve existing and functional ecosystems
- The smaller the River Basin, the more detailed the measures
- Need of land for Nature based Solutions
- Do not forget: design, building, maintenance and monitoring resources



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