

WP4: WATER QUANTITY ISSUES

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Transnational Cooperation for Sustainable River Basin Management
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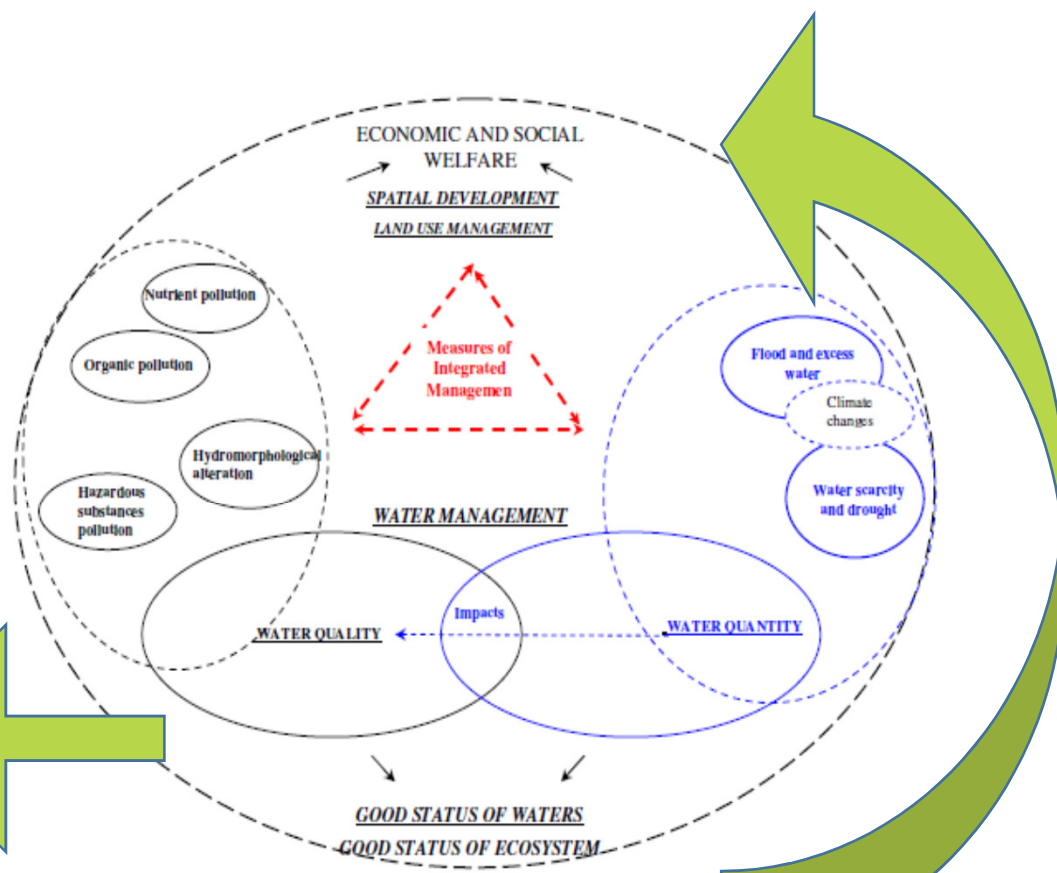
OBJECTIVES (WP4)

- 💧 **Water quantity** is identified as one of significant water management issue in Tisza River Basin (TRB) due to the over abstraction of groundwater (GW), increase in irrigation and surface water (SW) abstraction, and key integrated water management issues (excess water, droughts, and climate change).
- 💧 Achievement of good status for both GW and SW is obstructed by different sources of pollution.
- 💧 **INTERLINKAGES BETWEEN WATER QUANTITY AND WATER QUALITY MANAGEMENT ISSUES ARE IDENTIFIED WITHIN THE TRB.**

The main objective of this WP is to evaluate water demand, GW status and measures that will sustain balanced water quantity management and achievement of good water bodies' status.

Output 4.1Pilot 1: Urban Hydrology

OBJECTIVES (cond't)

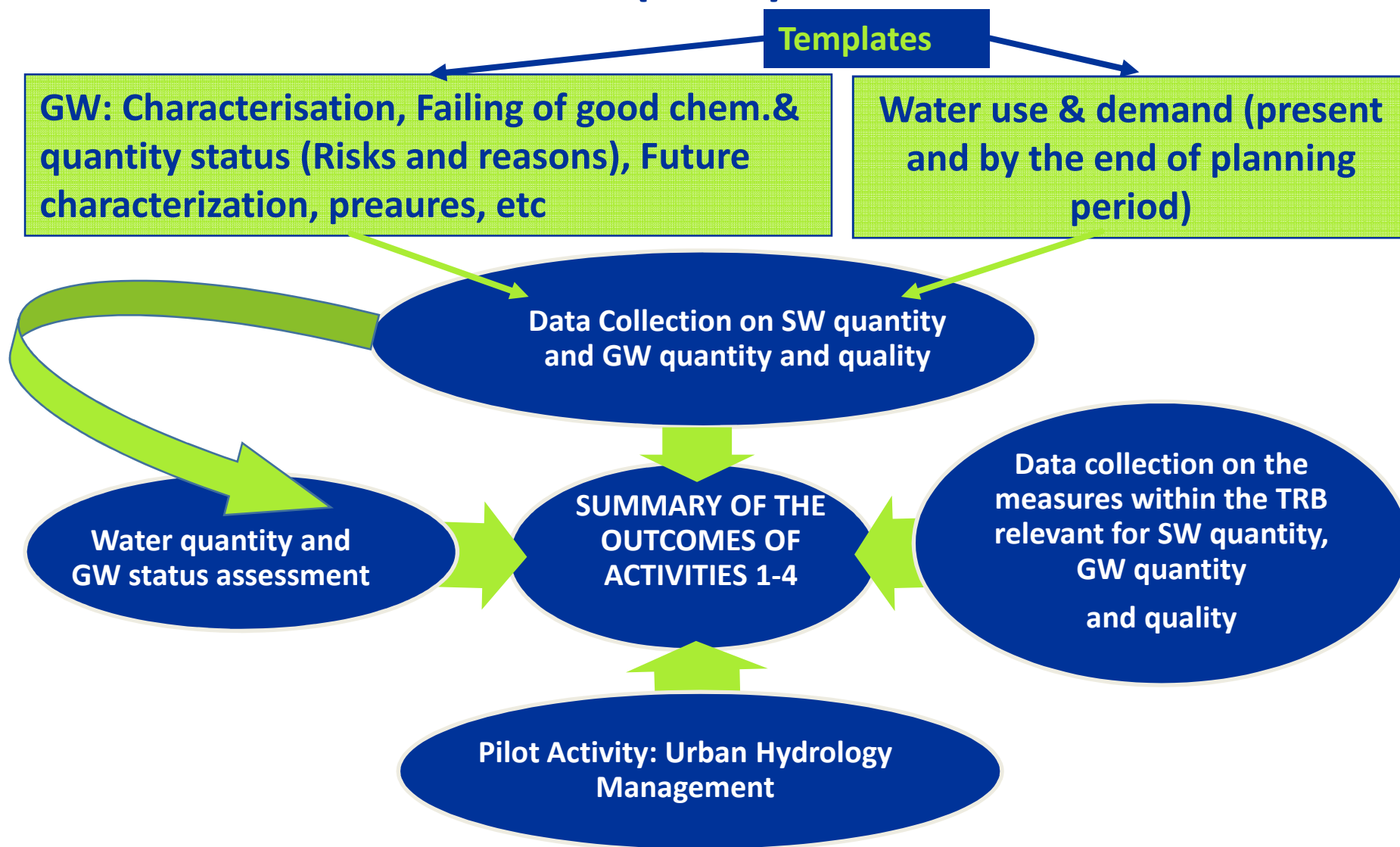


the key integrated water quantity management issues are categorized in a following way:

- 💧 **Floods and excess water;**
- 💧 **Droughts and water scarcity; and**
- 💧 **Climate change**

Inter-linkages between the water quality and quantity related management issues identified by the ICPDR Tisza Group

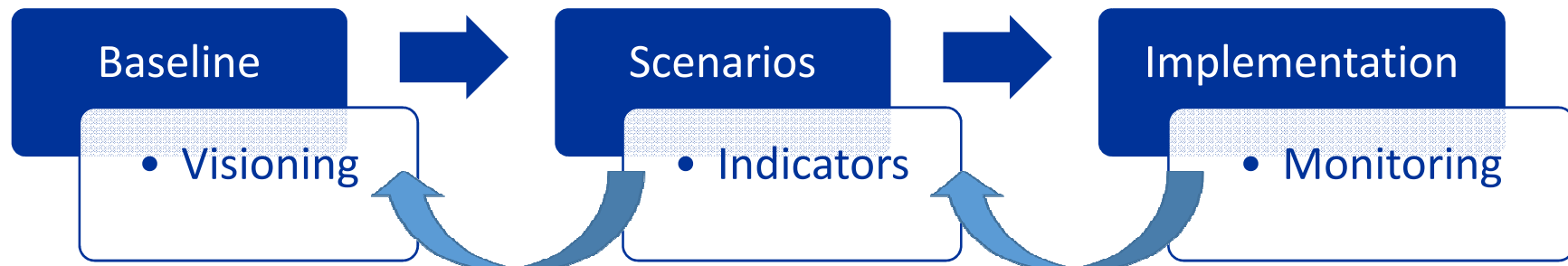
ACTIVITIES SUMMARY (WP4)



WP 4 Pilot Activity: Urban Hydrology Management (UHM)

Methodology: INTEGRATED URBAN WATER MANAGEMENT (IUWM)

- Collection and evaluation BMP of IUWM
- All parts of the urban hydrology as an integrated hydrological cycle loop
- All water users in local context
- Sustainable way (environmental- economic-social aspects) in the short/medium/long-term
- Multi-stakeholder involvement
- Bottom-up (share vision method)



UHM GUIDLINE AND EVALUATION REPORT

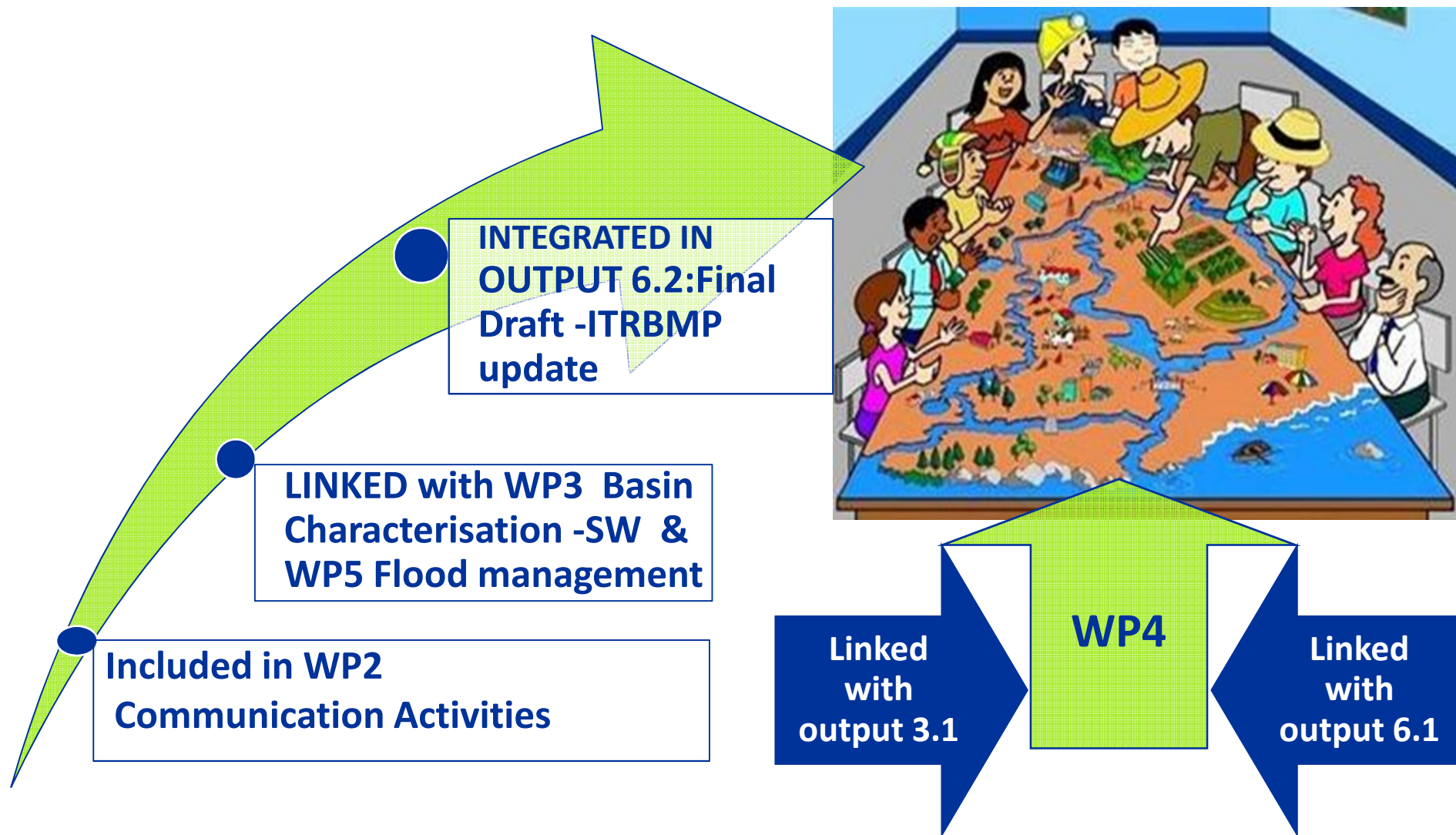
GUIDELINE- Information types of a DSS for urban water hydrology are:

- 💧 The identification and relationship between, all water related stakeholders
- 💧 Regional and local development plans –S3
- 💧 Social and economical data – water policy
- 💧 Hydrometeorological, hydrological and geological catchment data
- 💧 Water infrastructure
- 💧 RS data for land use and change modelling
- 💧 Natural resources data
- 💧 Relevant EU and local legislation and regulation
- 💧 The roles and responsibilities of water institutions
- 💧 HydroGIS modeling, etc.

PILOT ACTIVITIES EVALUATION REPORT with a strong focus on the feedback and learning process of the stakeholders after the training-sessions for stakeholders in the pilot area(s):

- 💧 Face to face training based on guide and case studies
- 💧 To learn integrated urban hydrology and compare with traditional urban water management
- 💧 Group work (water distribution, storm water, waster water)
- 💧 Presentation of group results
- 💧 Open discussion
- 💧 Urban hydrology in practice : Data sources, data mining, data integration
- 💧 Site visit of BMP (green zone management, rain harvesting ect.)
- 💧 Evaluation

WP4 LINKAGE WITH OTHER WPs





Thank you for your attention!

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Partners: General Directorate of Water Management, Hungary | Global Water Partnership Central and Eastern Europe, Slovakia | International Commission for the Protection of the Danube River, Austria | Ministry of Environment, Water and Forest, Romania | Ministry of Foreign Affairs and Trade, Hungary | National Administration "Romanian Waters", Romania | National Institute of Hydrology and Water Management, Romania | Public Water Management Company "Vode Vojvodine", Serbia | Regional Environmental Center for Central and Eastern Europe, Hungary | The Jaroslav Černí Institute for the Development of Water Resources, Serbia | Water Research Institute, Slovakia | World Wide Fund for Nature Hungary

Associated Partners: Interior Ministry, Hungary | Ministry of Agriculture and Environmental Protection Water, Serbia | Secretariat of the Carpathian Convention (SCC), Austria | State Agency of Water Resources of Ukraine | Tisza River Basin Water Resources Directorate, Ukraine