



3rd Progress Report

This project is funded by
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A project implemented by a Consortium
led by Hulla & Co. Human Dynamics KG

Revised Logical Framework

	Project component	Objectively verifiable indicators of achievement	Sources and means of verification	Assumptions and Risks
Overall Objective	To improve water quality in the transboundary river basins of the wider Black Sea region and Belarus	<ul style="list-style-type: none"> ▪ Improved water quality management system introduced and endorsed by countries based on WFD; ▪ Increased knowledge of drivers and pressures on ecological health and quality of SW and GW in general and in particular in selected transboundary river basins ▪ Increased knowledge of water quality and ecological status and impacts on SW and GWs in selected transboundary river basins at the water body level; ▪ Improved availability and quality of data on the ecological, chemical and hydro-morphological status of surface waters in selected transboundary river basins; ▪ Improved availability and quality of data on the quantity and chemical status of groundwaters in selected transboundary river basins ▪ The increased capacity of national laboratories in analysis of physical, chemical and biological parameters. ▪ The increased knowledge of beneficiaries of the WFD concept and techniques and steps in its implementation ▪ Establishment of Environmental Quality Objectives in pilot projects and implementation of initial measures to meet the objectives as part of wider Programme of Measures. 	<ul style="list-style-type: none"> ▪ New QA/QC procedures introduced in national laboratories during the life of the project. ▪ Results of inter-calibration exercises between national and international laboratories. ▪ River Basin Management Plans compliant with WFD prepared and endorsed by participating countries and presented as best practice. ▪ Strategic plans for approximation of WFD prepared and endorsed by participating countries ▪ Water quality status classifications of SW and GW up-dated and water bodies at risk targeted ▪ Environmental Water Quality Objectives agreed by national authorities within the context of RBMPs ▪ Programme of Measures developed and endorsed and implementation commenced. ▪ Number of plans for improvement of quality of discharges agreed with municipal and commercial enterprises. ▪ Information and data made available through official and project web-sites on water quality and ecological status. 	<ul style="list-style-type: none"> ▪ <i>The region remains politically stable and committed to sustainable development principles and environmental protection.</i> ▪ <i>The countries provide the financial support for development and implementation of RBMP, including investment in WFD compliant monitoring programmes.</i> ▪ <i>The process of developing the River Basin Management Plans is replicated in other transboundary basins in the wider Black Sea region and Belarus.</i> ▪ <i>The Programme of Measures for the selected pilot basins has strong legislative and budgetary support.</i>



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Purpose	<p>To improve the availability and quality of data on the ecological, chemical and hydro-morphological status of transboundary river basins including groundwater.</p>	<ul style="list-style-type: none"> ▪ Guidelines and methodologies developed for WFD compliant ecological, chemical and hydro-morphological SW status monitoring and beneficiary personal trained in implementation ▪ Guidelines and methodologies developed for WFD compliant GW and beneficiary personal trained in implementation ▪ Standardised information management system for selected transboundary river basins (Danube GIS) ▪ Improved QA/QC performance of national monitoring laboratories ▪ Standardised information management system including GIS database established and adopted ▪ Biological, physic-chemical and hydro-morphological data sets prepared for two seasons in transboundary river basins and three seasons in select sites in the Kura basin. ▪ Guidelines for ecological and biological classification systems developed and early systems applied ▪ Surveillance and operational WFD compliant monitoring programmes designed and implemented in selected transboundary river basins 	<ul style="list-style-type: none"> ▪ National maps of water quality status and summary data provided on official and project web-sites. ▪ Guideline documents prepared by project on monitoring and classification systems. ▪ Training materials and reports of training events posted on the project web-site (number, names and position of individuals trained) ▪ New GIS database populated with historical monitoring data and being used for analysis and reporting in selected transboundary river basins ▪ Record of improved QA/QC procedures established in national laboratories during life time of project. ▪ Advancement of international accreditation of national laboratories achieved during life time of project. ▪ Programme of Measures including interventions to improve the collection and analysis of ecological, chemical and hydro-morphological status. ▪ Minutes of National Consultation Committee meetings ▪ Minutes of national monitoring working groups. 	<ul style="list-style-type: none"> ▪ <i>The beneficiaries invest in enhanced monitoring programmes including the recruitment of new staff in biological and hydro-morphological monitoring.</i> ▪ <i>Data exchange agreements between government ministries and departments are honoured</i>



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	<p>To develop River Basin Management Plans (RBMP) for selected river basins / sub-river basins according to the requirements of the WFD</p>	<ul style="list-style-type: none"> ▪ RBMP for the selected basins developed by the beneficiaries in conjunction with national contractors in accordance with WFD procedures. ▪ Delineation and typology of SW and GW water bodies in selected pilot river basins as the basis for RBMP. ▪ Water bodies at risk identified and catagorised in selected river basins ▪ Gaps in knowledge of ecological status understood and addressed at the water body level. ▪ Programmes of Measures developed and their implementation commenced through the delivery pilot projects. ▪ Stakeholders and general public involved in the development of the RBMPs ▪ RBMP adopted at local and national level and Programme of Measures supported by legislative provisions and budgetary allocations 	<ul style="list-style-type: none"> ▪ WFD compliant draft RBMPs distributed locally and nationally for consultation on official and project websites. ▪ Records of stakeholder consultation meetings held during RMBP development. ▪ Written responses of stakeholders to consultation process received by beneficiary and project. ▪ Number of media articles on River basin management planning and specific RBMPs during project life time. ▪ RBMP component reports (Pressure and Impacts, Water bodies at Risk, Environmental Quality Objectives and Programme of Measures) prepared – project website ▪ Revised water quality status maps prepared and at risk water bodies published on project web-site. ▪ Training materials and reports of training events posted on the project web-site (number, names and position of individuals trained) 	<ul style="list-style-type: none"> ▪ Cooperation between the States around transboundary waters is constructive and remains good. ▪ The timelines of the Environmental Quality Objectives set are realistic. ▪ <i>The RBMP and Programmes of Measures are supported by the appropriate budgetary allocations at national and local level.</i>
<p>▪ Project Results</p>				
<p>Result 1:</p>		<ul style="list-style-type: none"> ▪ Guidelines and methodologies developed for WFD compliant ecological, chemical and hydro-morphological SW status monitoring and beneficiary personal trained in implementation ▪ Guidelines and methodologies developed for WFD 	<ul style="list-style-type: none"> ▪ Guideline documents on monitoring and classification systems prepared and made available on project web-site. ▪ Training materials and reports of 	<ul style="list-style-type: none"> ▪ Sufficient capacity and skills exist as a basis for training. ▪ National authorities remain committed to developing



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	<p>Increased capacities of the respective national authorities for hydro-biological, chemical and hydro-morphological monitoring of water quality including groundwater; quality assurance procedures in laboratories in place.</p>	<p>compliant GW and beneficiary personal trained in implementation</p> <ul style="list-style-type: none"> ▪ Introduction by countries of biological monitoring based on RBA technique in all countries by 2015 for initial biological elements. ▪ Identification of ecological reference sites in pilot basins and other basins and independent monitoring undertaken in 2015. ▪ Draft proposals for ecological classification system prepared and discussed with participating countries by July 2014. ▪ Biological and Hydromorphological monitoring training programme designed and implemented including practical and theoretical elements and training of trainer elements – Dec 2014 ▪ Increased capacity of laboratory staff in international QC/QA procedures ▪ Progression of National Laboratories towards development of quality assurance systems compliant with international accreditation ISO 17025 ▪ New laboratory Standard Operating Procedures developed and followed. ▪ WFD compliant monitoring programmes and recommendations for upgrading existing monitoring networks for Surveillance and Operational Monitoring are developed in selected pilot river basins 	<p>training events posted on the project web-site (number, names and position of individuals trained)</p> <ul style="list-style-type: none"> ▪ New GIS database populated with historical monitoring data and being used for analysis and reporting in selected transboundary river basins ▪ Record of improved QA/QC procedures established in national laboratories during life time of project. ▪ Advancement of international accreditation of national laboratories achieved during life time of project. ▪ Programme of Measures including interventions to improve the collection and analysis of ecological, chemical and hydro-morphological status. ▪ Minutes of National Consultation Committee meetings ▪ Minutes of national monitoring working groups. 	<p>WFD compliant monitoring networks.</p> <ul style="list-style-type: none"> ▪ Beneficiaries have the resources to support the monitoring efforts.
<p>Result 2:</p>		<ul style="list-style-type: none"> ▪ RBMP for the selected basins developed by the beneficiaries in conjunction with national contractors in accordance with WFD procedures. ▪ Training provided in water body delineation, Risk assessment, RBMP and development of Programme of Measures. 	<ul style="list-style-type: none"> ▪ SW and GW Typology and delineation reports – Dec 2013 on project web-site ▪ Draft RBMPs and component reports Dec 2014 on project website. ▪ Establishment of RBMP 	<ul style="list-style-type: none"> ▪ Suitable pilot basins can be identified and agreed with the beneficiary countries. ▪ Beneficiaries have sufficient staff available to support the development



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	Increased technical capacities by means of development and implementation of River Basin Management Plans (RBMP) for selected river basins.	<ul style="list-style-type: none"> RBMP adopted at local and national level and Programme of Measures supported by legislative provisions and budgetary allocations WFD compliant monitoring programmes designed and implemented in pilot basins for biological, hydro-morphological and chemical parameters (surveillance and operational) New ecological status classification system adopted for SW and chemical status system for GW adopted. Selected measures implemented by the beneficiaries. Before and after capacity assessments of the beneficiaries capacity and understanding of the WFD approaches. 	<ul style="list-style-type: none"> groups/departments with beneficiary organisations with inter-sectoral membership. Implementation reports of selected pilot projects by NWME and TL Before and after assessments of pilot project implementation show increased capacity. National Consultation Committee meeting minutes 	<ul style="list-style-type: none"> of the RBMPs. Relevant legislative provisions exist to implement the measures.
<ul style="list-style-type: none"> Project Activities 				
Result 1:	1.1 Review the national monitoring systems and tools for assessing data obtained from monitoring activities.	<ul style="list-style-type: none"> Determination of the status of national surface water and groundwater quality management, monitoring and assessment systems and gaps with respect to WFD compliant monitoring. Determination of legal and Institutional status with respect to WFD and gap analysis. Review of on-going and related support programmes identified and synergies identified. 	<ul style="list-style-type: none"> National gap analysis reports presented on web-site. National strategies for WFD monitoring compliance Legal and institutional assessments presented in pilot basin RBMPs. Endorsed national WFD compliance strategies 	<ul style="list-style-type: none"> Internal reports relating to national monitoring programmes and projects are freely available.
	1.2 Support the implementation of countries obligations under Danube and Water Conventions; Assist in the development of WFD compliant national water strategies.	<ul style="list-style-type: none"> Appreciation of country commitment and obligations under the two water Conventions at national and transboundary levels Contributions by Ukraine and Moldova to the Danube River Basin Assessment and 2014 River Basin Management Plan. Data provided to ICPDR in Danube GIS format for the River Prut by November 2014 Support provided to UNECE member states to meet their obligations under the UNCEC Water Convention 	<ul style="list-style-type: none"> 2014 River Danube assessment and 2015 River Danube Basin Management plan. Minutes of ICPDR annual meetings and project references on ICPDR web-site. Minutes of relevant ICPDR working groups and specific River Prut RBMP working group. Minutes of UNECE IWRM working 	<ul style="list-style-type: none"> The beneficiaries are committed to implementation of obligations under the Danube and Helsinki Conventions



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		and promotion of transboundary water management.	group. <ul style="list-style-type: none"> ▪ Reports on implementation priority support activities under the Convention in Ukraine and Moldova 	
	1.3 Develop WFD-compliant monitoring programmes including hydro-biological and hydro-morphological elements and groundwater;	<ul style="list-style-type: none"> ▪ Guidelines for the development of biological, hydro-morphological and chemical status compliant WFD monitoring programmes customised for participating countries and including transboundary steps by 2014. ▪ Introduction by countries of biological monitoring based on RBA technique in all countries by 2015 for initial biological elements. ▪ Identification of ecological reference sites in pilot basins and other basins and independent monitoring undertaken in 2015. ▪ Draft proposals for ecological classification system prepared and discussed with participating countries by July 2014. ▪ Biological and Hydromorphological monitoring training programme designed and implemented including practical and theoretical elements and training of trainer elements – Dec 2014. 	<ul style="list-style-type: none"> ▪ Report on the gap analysis clearly shows where existing methodologies need to be boosted to become WFD compliant. ▪ Numbers of trainees attending the courses and competency assessments of these trainees. ▪ Evaluation questionnaires from the trainings held; ▪ joint field surveys report to detect river reference conditions in each pilot basin ▪ WFD compliant monitoring programme for the pilot basins 	<ul style="list-style-type: none"> ▪ The number and technical capacity of local experts is sufficient to participate in training ▪ Practical monitoring programmes – cognisant of the financial and human resource constraints but still WFD compliant can be developed.
	1.4 Assist in the development of WFD-compliant tools for assessing data obtained from monitoring activities (ecological, chemical, hydro-morphological classifications) and for using assessment results in RBMPs development.	<ul style="list-style-type: none"> ▪ Standardised database for biological, chemical and hydro-morphological monitoring data. ▪ Standardised GIS format for river basin management planning prepared and adopted by relevant countries (e.g Danube GIS). ▪ Guidelines for water body delineation, typology and risk assessment based on WFD system A produced and adopted by those relevant countries by Dec 2014. ▪ Establishment of WFD compliant classification systems based on biological, hydro-morphological and chemical status parameters, including transitional steps, by 	<ul style="list-style-type: none"> ▪ Reports on the monitoring and classification protocols are uploaded to the Project Website. ▪ Classes are compliant with the normative descriptions in the WFD Annex V ▪ Project Website includes a database /web tool with GIS data. ▪ Classification reports on water bodies ▪ Data protocols provide for verification of data quality. 	<ul style="list-style-type: none"> ▪ There are sufficient skills in countries to build on. ▪ Reference sites can be identified and monitored ▪ The biological monitoring systems developed will be based on macro benthic invertebrates and will be supported by limited survey data. ▪ Sufficient data can be



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		June 2015.	<ul style="list-style-type: none"> ▪ Maps of water body classes included in the RBMPs 	<p>collected in order to establish meaningful threshold values for revised biological classification systems.</p>
	<p>1.5 Support the analytical quality control assurance procedure.</p>	<ul style="list-style-type: none"> ▪ Progression of National Laboratories towards development of quality assurance systems compliant with international accreditation ISO 17025 ▪ New laboratory Standard Operating Procedures developed and followed. ▪ Laboratory information Management systems revised in accordance with LIMS system ▪ Internal Analytical quality controls and Analytical Methods Validation strengthened in participating laboratories ▪ Increased capacity of laboratory staff in international QC/QA procedures 	<ul style="list-style-type: none"> ▪ Mission reports of key expert ▪ A physico/chemical/micropollutant sampling manuals, identifying methods and the equipment required for the chemical sampling for the joint field surveys ▪ Reports available on the project website. ▪ Training of each laboratory in carrying out an internal audit as required by ISO 17025. ▪ Internal audits reports of each collaborating national laboratory identifying the gaps that need to be addressed for International Accreditation 	<ul style="list-style-type: none"> ▪ The relevant laboratories accept and adopt QA/QC procedures. ▪ Laboratories participate the inter-calibration and inter-laboratory testing exercises
	<p>1.6 Assess the needs regarding laboratory infrastructure, equipment and training.</p>	<ul style="list-style-type: none"> ▪ Assessment of participating laboratory capacities, capabilities (equipment) and current analytical loads, in each beneficiary State ▪ Assessment of spare analytical capacity in each beneficiary State and future training needs 	<ul style="list-style-type: none"> ▪ Report links the analytical needs with the spare analytical capacity. ▪ Reports are uploaded to the Project Website. ▪ Correspondence from the participating laboratories confirming their spare capacity. ▪ Reports on trainings held; ▪ Assessments of the trainings. 	



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Result 2:	2.1 River Basin Analyses are undertaken.	<ul style="list-style-type: none"> ▪ Selection of transboundary pilot basins. ▪ River Basin Analyses (RBA) for pilot basins 	<ul style="list-style-type: none"> ▪ Report outlining the selection and confirmation of the 5 pilot basins. ▪ Contracts to undertake basin analyses ▪ River Basin Analyses available in English and Russian on project web-site. 	<ul style="list-style-type: none"> ▪ The necessary data and information to undertake the RBAs is made available by the beneficiaries. ▪ The beneficiaries agree on the pilot basins. ▪ The beneficiary actively participate in the process of RBA development and endorse the final document
	2.2 Water body identification and typology.	<ul style="list-style-type: none"> ▪ Preliminary typology and delineation of SW water bodies under WFD system A ▪ Preliminary typology and delineation of GW bodies. ▪ Final typology and delineation of water bodies based on system A and water bodies 'at risk', assessment 	<ul style="list-style-type: none"> ▪ Typology and delineation reports for pilot basins – project web-site. ▪ Preliminary GIS mapping reports of pilot basins showing water body types and boundaries – project web-site. ▪ Final GIS mapping report based on standardised format (Danube GIS) - er 	<ul style="list-style-type: none"> ▪ There are sufficient data on additional descriptors available to determine homogenous water bodies.
	2.3 Analysis of baseline situation.	<ul style="list-style-type: none"> ▪ Preliminary classification of water bodies is done based on historical data and chemical status classification systems ▪ Identification of Drivers, Pressures, Status and Impacts and preliminary Responses (DPSIR). ▪ Determination of 'at risk' biological, chemical and hydro-morphological criteria (thresholds) for SW water bodies and chemical criteria for GW. ▪ Secondary classification of water bodies based on historical data and 'at risk' assessment based on biological, chemical and hydro-morphological status ▪ Identification of information gaps relating to 'at risk' water bodies (SW and GW) ▪ Preliminary Programme of Measures to address priority issues and help identify pilot projects 	<ul style="list-style-type: none"> ▪ Pilot basin assessment reports – project web-site ▪ Pilot basin web-page on project web-site ▪ Terms of Reference for RBMPs developed by national consultants in compliance with articles of the WFD ▪ Pilot basin Pressures and Impacts, and Water body 'at risk' reports – project web-site ▪ Pilot basin SW and GW classification reports 	<ul style="list-style-type: none"> ▪ There are sufficient data to undertake a meaningful baseline assessment and gap analysis.



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	2.4 Joint field surveys to cover the gaps (and development of biological and ecological monitoring programmes).	<ul style="list-style-type: none"> ▪ Joint field Survey designs for Hydrobiological, physico-chemical, hydromorphological and groundwater parameters (EPIRB and Kura surveys). ▪ Survey sites selected based on gap analysis and reference site selection ▪ JFS implemented in 2013 and 2014 in all EPIRB pilot river basins ▪ Seasonal JFS implemented in Kura pilot basins in 2013 and 2014. 	<ul style="list-style-type: none"> ▪ Joint Field Survey design manuals - reports identify the gaps and the work needed to address these are available and uploaded to the Project Website ▪ EPIRB JFS reports incorporating field and laboratory measurements from 2013 and 2014. ▪ Kura JFS reports, incorporating 2013 (3) and 2014 (2) field and laboratory measurements and 222222 yearly reports ▪ Laboratory audits of JFS measurements – see KE3 mission reports ▪ Control laboratory analysis by international laboratories of selected JFS samples 	<ul style="list-style-type: none"> ▪ Staff and experts from the beneficiaries are available to participate in the joint field surveys. ▪ Sufficient project resources are available to cover the all the gaps identified.
	2.5 Development of Water Quality Targets and national and basin-wide Programmes of Measures.	<ul style="list-style-type: none"> ▪ Environmental Quality Objectives agreed for pilot basins based on WFD. agreed for pilot basins ▪ Preliminary Programme of Measures drafted ▪ Final PoM (basic and supplementary measures) at basin and national level approved and included in RBMP. ▪ Programme of Measures supported by legislative provisions and budget allocation through RBMPs and national planning documents. 	<ul style="list-style-type: none"> ▪ Environmental Quality Objective reports – project web-site ▪ Environmental Quality Objectives approved in final RBMPs. ▪ Programmes of Measures report for pilot clearly indicate the priority water bodies, basic and supplementary measures. ▪ Legislative and budgetary provisions supporting the PoM referenced in national planning documents ▪ Economic analysis reports in pilot basins 	<ul style="list-style-type: none"> ▪ The beneficiaries agree on the Programme of Measures and priority water bodies.
	2.6 Implementation of selected measures from the programme	<ul style="list-style-type: none"> ▪ Development of selection criteria for of pilot measures taken from preliminary PoM. 	<ul style="list-style-type: none"> ▪ Selection of the pilot projects endorsed by the relevant 	<ul style="list-style-type: none"> ▪ The beneficiaries agree on the most appropriate



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	for pilot projects.	<ul style="list-style-type: none"> ▪ Pilot project ToR developed and work contracted to national consultancies agencies and institutions – May 2014 Pilot projects implemented – May 2014 – Oct 2015 ▪ Pilot project evaluated based on SMART criteria 	<p>beneficiaries.</p> <ul style="list-style-type: none"> ▪ Co-funding agreements with national funds and other projects. ▪ ToR and contract documents for pilot projects ▪ Tender evaluation reports ▪ Inception and final reports prepared by contractors ▪ Monthly project supervision reports by NWME in each country ▪ Six monthly supervision reports and final evaluation report by TL. 	<p>measures to pilot.</p> <ul style="list-style-type: none"> ▪ There are sufficient project resources to implement the selected Measures. ▪ The selected measures have high likelihood of success
	2.7 Public involvement and awareness raising activities.	<ul style="list-style-type: none"> ▪ A communication strategy and plan prepared and agreed for each pilot basin and implemented in parallel with the RBMP development, in accordance with WFD. ▪ Draft RBMP made available to basin stakeholders in Dec 2014 ▪ Key RBMP reports are translated and summarised for public access via project web-site . ▪ Public awareness activities are held, including sub-regional stakeholder meetings ▪ Production of leaflets and Newsletters regarding the project and RBMP ▪ Awareness materials produced and disseminated. ▪ Meetings for specific ‘hot spots’ are held. ▪ Project website developed. 	<ul style="list-style-type: none"> ▪ Commentary and volume correspondence on draft RMBP distributed locally. ▪ Reports and photos from the public awareness events. ▪ Number of national and local articles and advertisements in Mass Media recorded on RBMP and WFD during the life time of project. ▪ Number of recipients and reviewers of Leaflets and Newsletters ▪ Numbers of Awareness materials distributed and number of people participating in awareness events. ▪ Minutes and notes of the public meetings showing attendance records. ▪ Hits on the website 	<ul style="list-style-type: none"> ▪ Suitable days for the public awareness campaigns are available. ▪ The public remains interested in protecting the environment.