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BASE PROJECT FINAL REPORT

RECOMMENDATIONS

BASE PROJECT FINAL REPORT - RECOMMENDATIONS

BASE PILOT ACTIVITY	Main Outputs / Results
EXTENSION OF THE MARINE PROTECTED ZONE OF THE CURONIAN SPIT NATIONAL PARK	Application to the Ministry of Natural Resources and Environment of Russia: establishment of a marine protected zone
	This will contribute to the protection of biodiversity in South-East Baltic
	A number of promotion activities - citizens of Kaliningrad interested in the natural values of their area
WILD SALMON IN THE RIVER LUGA	Research shows that the main reason for the decline of wild salmon numbers in the River Luga is their unreported catch (overfishing and poaching)
	The salmon potential of the River Luga can be increased to 360,000 (from 170,000) juveniles by means of the melioration of that part of the spawning grounds currently not used by salmon, as well as the elimination or attenuation of unreported (illegal) fishing

Main Recommendations	RUSSIAN AUTHORITIES	OTHER ACTORS
For Russia to establish the marine protected zone following the submission of the necessary documents	Ministry of Natural Resources and Environment of Russia	PROTECT Curonian Spit National Park Authorities
To establish an effective management programme to control illegal catch To increase number of Luga salmon hatcheries to maintain the population of wild salmon in the River Luga To restore the river to incease its capacity to provide spawning grounds	Ministry of Natural Resources and Environment of Russia Ust-Luga Harbour Authority St. Petersburg Initiative N-W territorial authority of the Federal Fishery Agency Committee of Natural Resources of the Leningrad Region Federal Service for Supervision of the Use of Natural Resources	Coalition Clean Baltic (CCB) OCEANA Fish-PRO Baltic Sea Advisory Council Fiish M International Council for the Exploration of the Sea (ICES Working Groups) HELCOM FISHERIES ENVIRONMENT FORUM Russian NGOs

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AGRICULTURE: MANURE MANAGEMENT PLAN FOR KALININGRAD	The report shows that as there is a shortage of organic fertilizers, even in the case of a substantial growth in animal/poultry stocks all produced manure will be in high demand in the region
	An extensive online database of technologies, machines and equipment for manure processing can be found at http://eco.sznii.ru. This project has contributed to updating the database with region-specific information
	Decision-making guidelines were elaborated for the local executive agencies responsible for agriculture development. The guidelines focus on the siting of new and the modernization of existing livestock complexes and based on nutrients (N and P) balance calculation.

Main Recommendations	RUSSIAN AUTHORITIES	OTHER ACTORS
All the processed animal/poultry manure may be used as an organic fertilizer	Kaliningrad Ministry of Agriculture of Russia Kaliningrad Government	HELCOM AGRICULTURE ENVIRONMENT FORUM
The project recommends subsidies to agricultural producers as a tool of state economic support. Subsidies would be used to compensate a portion of expenditures on organic fertilizer.		

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SCATTERED SETTLEMENTS, NUTRIENT REDUCTION POTENTIAL FROM WASTE WATER	The total nitrogen load (Ntot) coming to the Baltic Sea from scattered settlements of the Kaliningrad region is estimated in 377,01 t/a and the total phosphorus load (Ptot) in 86,91 t/a. The nutrient loads into the Gulf of Finland from scattered settlements of the Leningrad region are 4584,9 t/a for Ntot and 836,6 t/a for Ptot
	32 issues have been identified as blocking waste water treatment development in the region (administrative and financial issues; difficulties of technical maintenance, accounting and logistics, as well as lack of information on available practices and technical solution)
	In the studied area, the issue of communal infrastructure in general, and the disposal and wastewater treatment in particular, is one of the most actual problems and constraints of social development of settlements
	Proposals and recommendations for good solutions to improve the waste water treatment of individual households
	Water management plan (water supply and sanitation) for a pilot agglomeration in Leningrad region
	An estimation of the cost-effectiveness of the waste water treatment plant on the Isle of Valaam in Karelia
	Proposals and recommendations for good solutions to improve the waste water treatment of individual households

Main Recommendations	RUSSIAN AUTHORITIES	OTHER ACTORS
Improvement of input data (including statistical data) regarding, for example, nutrient retention and the number of summer houses. Moreover, there is a need to investigate the influence of the different waste water systems on the potential to decrease the nutrient load		
• Development of the schemes of water supply and water discharge (according to the Federal Law "On Water supply and water discharge") • Development of the legal background for economic stimulation of the development of water management systems in scattered settlements • Establishing a dialogue between different authorities regulating water management, house owners, business society and financial organizations • Pilot project on the installation and commissioning of a waste water management system in a selected small settlement. The project can be launched in the frame of St. Petersburg Initiative activities • Based on the pilot project results, launching investment projects aimed at water management systems, including setting up waste water treatment plants in small settlements • Development of investment projects in the field of waste water management in the frame of state programmes at federal and regional level	Ministry of Economic Development of Russia St. Petersburg Initiative Ministry of Regional Development of Russia Ministry of Natural Resources and Environment of Russia	PLC projects Russian association of water supply and discharge Russian NGOs

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MICROPLASTICS IN WASTE WATER, ST. PETERSBURG	The results of this study show that the WWTPs may operate as a point source of microplastic litter into the aquatic environment. However, the reduction of the microplastic load is also remarkable in scale.
MINIMIZE OIL POLLUTION TO THE PREGOLYA RIVER FROM KALININGRAD PORT OIL TERMINAL	New screening activities were performed to determine the level of oil contamination on the premises of the Kaliningrad Port Oil Terminal and the adjacent water area of the Pregolya River
	The statutory and legal framework of the facility's environmental activities was determined
	Should the Kaliningrad Marine Fishing Port (of which the Kaliningrad Port Oil Terminal forms one part) implement the Environmental Management Plan fully, a more than 50-fold reduction in oil pollution from the oil terminal to the Pregolya River could be expected. This result would allow for the removal of the site from the HELCOM Hot Spots list
PHARMACEUTICALS IN WASTE WATER, ST. PETERSBURG	Screening activities in WWTPs (inflow/outflow) and receiving water bodies.
	Evaluation of the efficiency of treatment methods at municipal waste water treatment plans.
	Assessment of potential sources and flows of pharmaceuticals.
	Evaluation of consumer use patterns and other sectors' use (e.g. industry, hospitals and pharma-

Main Recommendations	RUSSIAN AUTHORITIES	OTHER ACTORS
In order to evaluate the actual role of WWTPs on the total microplastic load of the marine environment, a more detailed investigation is needed into the amount and types of microplastic litter in waste water and in natural waters. Extensive studies of other possible sources are needed	Kaliningrad Ministry of Agriculture of Russia	EUREAU, WssTP (Waste water treatment associations) PDP - Plastic Disclosure Project MICRO project BIOCLEAN Project CORESET II Baltic Marine Litter Programme HELCOM Marine Litter Network
Improve recovery of free oil phase by installing new oil pumping wells along the pier that was found to be the critical area of oil leakage to the River In three of the four waste water discharge channels from the site to the River, the concentration of oil in water exceeds the maximum allowed concentration of 0,05 mg/l by 2 to 14 fold. Water treatment will be improved by implementing physical, chemical, and biological treatment processes that aim to lower discharges of oil to the		HELCOM RESPONSE GROUP

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BASE PILOT ACTIVITY	Main Outputs / Results
MONITORING: NUTRIENTS IN NEVA, ITS TRIBUTARIES AND TRANSBOUNDARY RIVERS IN LENINGRAD REGION	The total load with River Neva to the Gulf of Finland is 2,500 t/a for Ptot and 63,000 t/a for Ntot, of which app. 75% (75% for Ptot and 85% for Ntot) originated from the Lake Ladoga outlet and the rest with tributaries, partly as unspecified loads most likely caused by direct point sources of inputs to the River Neva
	The Russian part of the nutrient load via the River Narva to the Gulf of Finland is approximately 7,687 tonnes of total nitrogen (Ntot) and 339 tonnes of total phosphorous (Ptot), with the natural background load constituting of 3459 and 122 tonnes of total nitrogen and total phosphorus, correspondingly. The main part (more than 80 %) of this calculated total Russian load originates from diffuse sources, namely the agriculture sector such as run-off from arable lands and emissions from organic and mineral fertilizers
	The approximate Russian share of nutrient input from the River Daugava to the Gulf of Riga was 100 t/a for Ptot and 2,000 t/a for Ntot
	The Russian contribution to the nutrient load to the Gulf of Finland in 2013 estimeted in 3,700 t/a for Ptot and 87,000 t/a for Ntot

Main Recommendations	RUSSIAN AUTHORITIES	OTHER ACTORS
Take into account the transboundary load from Finland, e.g. by establishing agreement with in bilateral cooperation or/and HELCOM process. Improve data collection concerning the actual nutrient load from point sources within the Russian catchment area	Ministry of Natural Resources and Environment of Russia	Organisations forming the monitoring system in Russia
Improve the data collection for modelling activities and model verifcation in the River Narva catchment		
Collect the most recent information on the nutrient load in the River Daugava on the border between Russia and Belarus, using Russian state monitoring capacity and/or data from the Belarussian side obtained within the existing bilateral agreement		
Further develop the state monitoring programme of the Russian Federation		

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BASE PILOT ACTIVITY	Main Outputs / Results
MONITORING: NUTRIENTS IN PREGOLYA, ITS TRIBUTARIES AND TRANSBOUNDARY RIVERS IN KALININGRAD REGION	The approximate total nutrient input from the Kaliningrad Region to the Baltic Sea constitutes 10,667 t/a for total nitrogen and 927 t/a for total phosphorus The total annual nutrient inputs to the Vistula Lagoon are 5,384 tonnes nitrogen and 529 tonnes phosphorus (69% of nitrogen comes from the Pregolya River and 26% from the Kaliningrad waste canal and for phosphorus 48% and 46% respectively) The total annual input to the Curonian Lagoon in 2013-2014 was 9,459 tonnes total nitrogen and 332 tonnes total phosphorus The Angrapa, the Golubaya, the Stream Glubokij, and the Lava mainly employed in the Pregolya water stream formation (these tributaries in total bring 8111 tons of total nitrogen and 369 tons of phosphorus a year). The average annual input in the period 2010-2013 from the Russian part of the catchment to the Baltic Sea via the River Neman and the Matrosovka Canal constitutes 700 tonnes of total nitrogen and 200 tonnes of total phosphorous
MONITORING: SCREENING OF HAZARDOUS SUBSTANCES IN KALININGRAD REGION	Results pending - we will need to write that results available in a separate report
USEFUL DATA FOR CORESET II	Some useful data for CORESET II

Main Recommendations	RUSSIAN AUTHORITIES	OTHER ACTORS
For a more detailed analysis of the water bodies in Kaliningrad Region it would be sensible to elaborate a monthly monitoring scheme on total nitrogen and phosphorus concentrations in the existing monitoring points as well as in the previously unmonitored rivers		PLC projects
To encourage Russian participation in HELCOM core indicators work		CORESET II

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STATUS OF RUSSIAN HOT SPOTS	The reports identifies three (+ some more vague) Hot Spots which could be eliminated from the list
PREPARATIONS ON DEVELOPMET OF JOINT MANAGEMENT PLANS FOR: 1. THE VISTULA LAGOON (PL-RU) 2. THE CURONIAN LAGOON (RU-LT)	1. Continuing the critical work on the area and broadening the range of authorities involved on local, municipal and federal levels as well as research institutions to speed up the process for a joint management plan building on the existing projects' results. 2. Initiating a new discussion platform among relevant Russian authorities responsible for different sectors, for identifying a joint approach and for developing a plan, to urgently improve the envi-
PUBLIC AWARENESS	Study tour for ca. 30 students Public event related to Curonian Spit TV spots, articles Printing of HELCOM recommendations in Russian Bilingual ENG-RUS agriculture glossary BASE home page Eutrophication roll-up in Russian

Main Recommendations	RUSSIAN AUTHORITIES	OTHER ACTORS
For Russia to submit application for removal from the Hot Spot list	Ministry of Natural Resources and Environment of Russia	
	The Government of Kaliningrad region to put into operation the Waste Water Treatment Plant in Kaliningrad City 1. Polish-Russian environmental commission	HELCOM-VASAB MSP Group

THANKS

List of authorities and institutions we would like to thank for their support, contribution and challenging questions.

FROM RUSSIA:

Federal level ministries, agencies and institutions

Ministry of Natural Recourses and Environment of the Russian Federation

Ministry of Culture of the Russian Federation

Ministry of Defense of the Russian Federation

Federal Security Service

Federal Agency of Maritime and River Transport

The Federal Agency for Fisheries (FAR)

The Federal Service Registration, Cadastre and Cartography

The Federal Agency for State Property Management

The Federal Subsoil Resources Management Agency

Federal Forestry Agency

Federal Service for Supervision in the Field of Nature Use, North West District Departamnet

North-West interregional Department Federal Service of Hydrometeorology and Environmental Monitoring

Research and Design Institute of Urban development (NIIPGradostroitelstva)

Biodiversity Conservation Center in Moscow

Federal Fishery Agency, NW Board

State Research Institute for Lake and River Fisheries

Rosprirodnadzor (Federal Service for Supervision in the Use of Natural Resources)

Federal port administration Environment protection department

Federal Registration Service

Federal authorities representation at regional level

Neva-Ladoga Water Basin Administration (Kaliningrad Branch)

FSI Kaliningrad Provincial Center for Hydrometeorology and Environmental Monitoring

FSI “Balttehmordirektsiya” Kaliningrad branch

Administration of Sea Port of Kaliningrad

FSUE Rosmorport Kaliningrad branch

West Baltic Territorial Administration FAR

Department of Mineral Resources for Kaliningrad Region

Service for ecological control and supervision in the Kaliningrad region

West - Baltic Territorial Administration of the Federal Fishery Agency

Cadastre and Cartography of the Kaliningrad Region

Baltic Institute for Ecology of Hydrosphere

Center for Ecological Safety, Russian Academy of Sciences

Regional level
(government, municipal and scientific institutions)

Ministry of Infrastructure Development of the Kaliningrad region;

Ministry of Tourism of Kaliningrad region

Agency for International and Interregional Relations of the Government of Kaliningrad Region;

Service for ecological control and supervision in Kaliningrad region

Department of water resources use, Committee for natural resources of Leningrad region

Department of fisheries, Committee for agricultural and fishery complex of Leningrad region

Municipal Institution ECAT-Kaliningrad

Agency for Fisheries and Fishery Industry Development of the Kaliningrad Region

Agency for Protection, Reproduction and Use of Wildlife and Forests of Kaliningrad Region

Kaliningrad City Administration

Kaliningrad State Technological University BFU of Immanuel Kant

Russian Academy of Science,
P.P. Shirshov Institute of Oceanology Atlantic Branch

Atlantic Scientific Research Institute for Fisheries and Oceanography

Kingisepp District administration, Leningrad region

Luga District administration, Leningrad region

TehnoTerra Ltd

FSI “Kaliningrad Provincial Center for Hydrometeorology and Environmental Monitoring”

SUE Vodokanal of St. Petersburg

Ecoglobus consortium with Baltic Institute for Ecology of Hydrosphere (BIEH)

Committee Urban City Administration “City of Kaliningrad”

Protection Agency, reproduction and use of wildlife and forests of the Kaliningrad region

SMU - 303 Engineering

Agency for International and Interregional Relations of the Government of the Kaliningrad region

SPb PO «Ecology and Business»

FSI “Balttehmordirektsiya” Kaliningrad branch

Municipal District Administration Gurievsky

Adminstrarion of Zelenogradsk district

Monitoring Agency «Balttechmordirectiya»

NGO “Zelenaya volna” (St.Petersburg)

Fish catching company “Truzenik Morja”

LUKOIL – KMN Ltd.

Baltic Fund for Nature

ARSoNP

National Park “Curonian Spit

Biodiversity Conservation Center (Moscow

EcoMMAC Ltd.

Marketing Agency Murkot

The State Scientific Institution “North-West Research Institute of Agricultural Engineering

Electrification (SZNIIMESH)” of the Russian Academy of Agricultural Sciences

FROM POLAND:

Chief Inspectorate for Environment Protection -> Department of Monitoring and Reporting

Voivodeship Inspectorate for Environment Protection in Olsztyn, delegation in Elblag

Voivodeship Inspectorate for Environment Protection in Gdansk,

General Directorate for Environmental Protection

Institute of Meteorology and Water Management,

Regional Water Management Authority in Gdynia

Marine Fisheries Research Institute in Gdynia

Maritime Institute in Gdansk

Inland Fishery Institute/Poland

FROM LITHUANIA:

National Park «Curonian Spit” Lithuania

Klaipeda University

Mayor of Neringe

FROM FINLAND:

Helsinki Region Environmental Services Authority HSY

John Nurminen Foundation

Ministry of the Environment of Finland

Finnish Environment Institute (SYKE)

FCG International Ltd

TineCoin

Envieno

Pöyry Finland Oy

Baltic Sea Action Group (BSAG)

HEALFISH project, Finnish Game and Fisheries Research Institute

MTT Agrifood Research Finland

FROM SWEDEN :

Coalition Clean Baltic/Sweden

RUSNIP project, Swedish Environment Protection Agency

INTERNATIONAL PROJECTS:

Environmentally responsible agricultural business development in North-East Baltic Sea Region – ERAB (Russia, Latvia, Sweden)

Central Baltic INTERREG IV A Programme 2007-2013

VILA Project - Unities and benefits of joint use of the Vistula lagoon
Lithuania - Russia - Poland / CBC Programme 2007-2013

...AND MANY MORE!

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