



# BaltHazAR

## Baltic Hazardous waste and Agricultural releases Reduction

### Hazardous Waste

The Fifth HELCOM Baltic Sea Action Plan  
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# Tasks and Goals Hazardous Waste

- Inventory and initial risk assessment
  - List of priority landfills/dump sites
  - Legislative assessment
  - Proposals for pilot projects
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- Goal is to support development of Russian NIP for the BSAP
    - Prioritize measures
    - Connect with financing for investments





# Hazardous Waste Component

- 365 legal and illegal landfills in Leningrad region
  - 12 managed/200 unauthorized
- 1 hazardous waste disposal facility and 2 operational MSW landfills in StP
- 40 managed landfills in KO
- 120 closed/illegal landfills in KO





# Priority landfills

## Leningrad Oblast

- ✓ 9 operating MSW Landfills
- ✓ 1 industrial waste landfill



## Kaliningrad Oblast

- ✓ 8 operating landfills
- ✓ 2 closed landfills
- ✓ 1 industrial waste landfill

## St. Petersburg

- ✓ 7 closed landfills/dumpsites
- ✓ 2 operating MSW Landfills
- ✓ 1 hazardous waste landfill "Krasnyi Bor"





# Screening activity

## -altogether samples at 12 sites

- High heavy metal concentrations, especially in Leningrad region and St. Petersburg
- Phenols concentrations exceeded local standards at all landfills
- Oils, dioxins and PBDEs present in nearly all landfill leachates.
- PAHs, dioxins and PBDEs in sediment and water samples higher in Kaliningrad

Confirms previous studies:

- Soil polluted by heavy metals, 10-100 times higher than background levels
- Some PAH-compounds and PCBs exceeded the standard value on 30-70% of sites. DDT found at 2 of 6 Priority landfills





# Link to HELCOM

Analysed parameters:

- Heavy metals: Hg, Cd, Pb...
- PAH, oil, phenols
- Endosulfan
- Dioxins/furans/PCBs
- Flame retardants

## Substances or substance groups of specific concern to the Baltic Sea

1. DIOXINS (PCDD), FURANS (PCDF) & DIOXIN-LIKE PCBS

2A. TRIBUTYLTIN COMPOUNDS (TBT)

2B. TRIPHENYLTIN COMPOUNDS (TPhT)

3A. PENTABROMODIPHENYL ETHER (pentaBDE)

3B. OCTABROMODIPHENYL ETHER (octaBDE)

3C. DECABROMODIPHENYL ETHER (decaBDE)

4A. PERFLUOROCTANE SULFONATE (PFOS)

4B. PERFLUOROCTANOIC ACID (PFOA)

5. HEXABROMOCYCLODODECANE (HBCDD)

6A. NONYLPHENOLS (NP)

6B. NONYLPHENOL ETHOXYLATES (NPE)

7A. OCTYLPHENOLS (OP)

7B. OCTYLPHENOL ETHOXYLATES (OPE)

8A. SHORT-CHAIN CHLORINATED PARAFFINS (SCCP)

8B. MEDIUM-CHAIN CHLORINATED PARAFFINS (MCCP)

9. ENDOSULFAN

10. MERCURY

11. CADMIUM





## Linking BALTHAZAR to ongoing HELCOM activities, i.a.

- COHIBA –project (2009-2011)
  - Sources of selected substances
  - Management options
- HELCOM assessments
  - Screening of occurrence of Hazardous substances in the Baltic Sea
  - HOLAS/HAZAS
- Further coordination in BALTHAZAR II



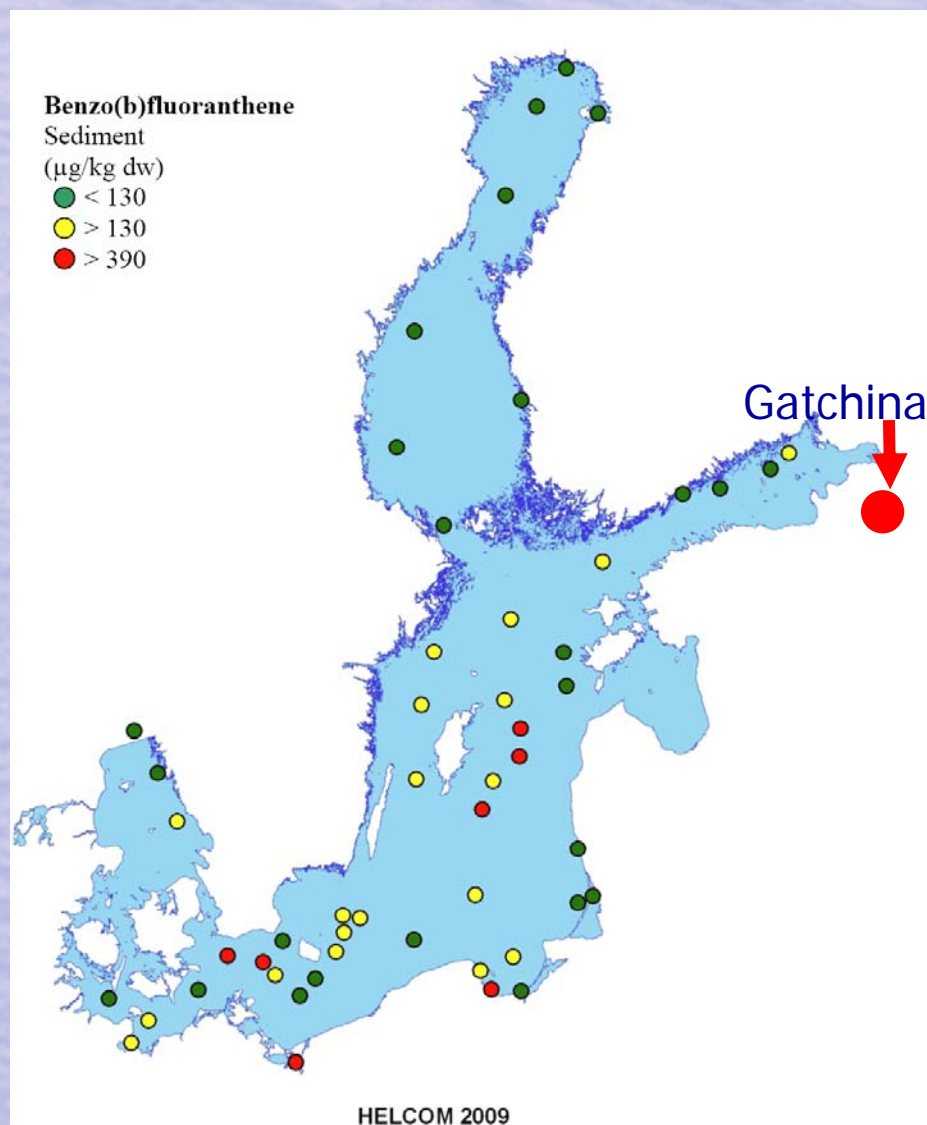


# PAH Benzo(b)fluoranthene

Sediment in Izhora river: 4,7 mg/kg

● US EPA treshhold  
0,130 mg/kg

● Red dot: 0,390  
mg/kg



**Figure 2.28** Map of the status of benzo(b)fluoranthene in surface sediments in relation to the threshold value of 130 µg/kg dw (US EPA T20 value to indicate a boundary, indicating 20% probability to observe toxicity). The red marks refer to status of high concern, shown as three times the threshold value.





# Pilot projects proposed for St. Petersburg and Leningrad Oblast

- Improving galvanic waste treatment in St. Petersburg
- One industrial area clean-up concerning mercury-containing fluorescent lamps
- Feasibility/contamination study for reclaiming one priority landfill





## Pilot proposals in Kaliningrad:

- Improvement of Collection and Treatment of Mercury Containing Waste (MCW)
  - Waste generation study
  - Separate collection from households
  - Development of regional strategy
  - Enhancement of treatment capacity
- Cleaning the oil-containing soil at Oil Storage of Port of Kaliningrad





## Upcoming:

- Steering Group Meeting – Baltic Sea Day
  - Decisions on pilot projects
  - Approval of project reports
- Realisation of small pilot projects by February 2011
- Phase II will start probably in 2011 with 1 year implementation period
- Coordination with COHIBA and HELCOM assessments





**Thank You for the  
attention!**