Evaluation of the PITF Regional Workshops

(prepared for HELCOM PITF 19/2002 Meeting)

1. Introduction

In the light of recent developments HELCOM HOD 2/2000 advised PITF to reconsider its focus of activities. The HELCOM Heads of Delegation advised to establish a Preparatory Group to assist in the preparations and to highlight the relevant issues in a discussion paper drafted by the Secretariat.

The Preparatory Group proposed a series of Regional Workshops (RWS). The overall aim of the workshops was to present information and data on the Hot Spots as the basis for a detailed discussion of the single hot spots with a view of future deletion from the List of Hot Spots.

By the end of October 2002 ten Regional Workshops and one bilateral meeting have been conducted covering all the countries participating in the JCP/PITF. Participants in the workshops have been representatives from local, regional and national level and the so-called "Hot Spot owners". The workshops have given an overview on the environmental situation in general, the status of Hot Spots in the countries/regions concerned as well as information about the needs and possibilities for accelerating the implementation of the JCP towards deletion of Hot Spots.

After the first six PITF Regional Workshops the Preparatory Group presented a Progress Report with a preliminary evaluation of the Workshops including concrete proposals on how to proceed to the PITF 18/2001 meeting. This report summarises the "lessons learnt" after the completion of all Regional Workshops.

2. The PITF Regional Workshops (RWS)

RWS carried out

An overview on the RWS carried out is as follows:

Country	City/Region	Date	Thematic Report
Latvia	Riga	24-25 May 2000	published
Lithuania	Vilnius	26-27 October 2001	published
Estonia	Tallinn	1-2 March 2001	published
Russia	Kaliningrad	23-24 April 2001	in preparation
Russia	St. Petersburg	13-14 June 2001	in preparation
Poland I	Cracow	25-26 September 2001	in preparation
Denmark/Germany	Lübeck	29-30 January 2002	in preparation
Finland/Sweden	Stockholm	27-28 May 2002	in preparation
Belarus/Ukraine	Lvov	18-19 June 2002	in preparation
Poland II	Wroclaw	8-9 October 2002	in preparation
Czech Republic*)	Prague	30 October 2002	Minutes only

*) No Workshop but a bilateral meeting

Two Regional Workshops were organised in Poland in order better cover all the Hot Spots in different parts of Poland.

The Conclusions of the ten Regional Workshops conducted are presented in the Annex to this document (total 51 pages).

Organisation and structure of the RWS

The Regional Workshops have provided a good opportunity to meet the people dealing with the Hot Spots. The host countries have been responsible for inviting Hot Spot owners, governmental, regional and local authorities as well as NGOs, while the Secretariat has invited members of the PG and the International Financial Institutions as well as special guests on behalf of the country.

The agendas of the workshops were elaborated by the host countries and the Secretariat, and occasionally a drafting group consisting of representatives of the country and the Secretariat (Rapporteur) safeguarded the elaboration of the conclusions by time and substance.

Generally, at the RWS a representative of the host country gave an overview on the overall environmental situation of the country/region including fields of progress and problems which do frame the Hot Spots with respect to further development and upgrading. Representatives of the International Financial Institutions have described the role of IFIs in relation to HELCOM PITF, the general tasks they deal with in the country/region, and the experience they have gained in the country.

Representatives ("owners" or responsible authority) for each of the Hot Spots gave information on the status of the Hot Spots and the measures planned or being implemented towards deletion from the List. Documentation reflecting the status/development of the Hot Spot, in particular regarding emissions and discharges of pollutants, etc., figures on investments and plans for measures towards deletion of the Hot Spot has been very useful. Most host countries covered all presented Hot Spots by documents distributed before and at the Workshops, which facilitated proper understanding of the problems and good discussions.

The information provided, drawing a realistic picture on further development of the Hot Spots towards deletion from the List, together with needs and problems identified, formed the basis for the conclusions.

The structure of the RWS conclusions has changed during the series of workshops with increased focus on technical/investment problems and actions in relation to the individual Hot Spots and less on the general JCP and PITF aspects. Generally, the conclusions of each Regional Workshop provide information about:

- the coordination of the PITF activities and the importance of an integrated approach, involving different sectorial authorities,
- the legal and organisational framework for Hot Spots management,
- investments and the role of the governmental, regional and local authorities and the involvement of the private sector,
- information on the status of the Hot Spots, progress and problems regarding further development towards the deletion of the Hot Spot from the List.

As a general rule a press conference has been arranged after the workshop aiming to increase the awareness of environmental problems in the region and to make the efforts towards reduction of pollution from point and non-point sources more visible.

Thematic Reports will be prepared by the countries concerned, in addition to the conclusions from the RWS, in order to present the assessment of the Hot Spots and to provide information within the country. Thematic Reports from the first three RWS have been published so far.

3. Experience gained through the RWS

The Regional Workshops have demonstrated that the Baltic Sea Joint Comprehensive Environmental Action Programme (JCP) is alive and active, and that the expression "Hot Spots" is very well known

The preparation, realisation and reporting of the workshops demonstrate that the concept has been workable and useful. The participation and presentations by representatives of the IFIs has been important and useful. Also the general presentations by the central authorities regarding the legal and organisational framework for Hot Spots management and the different investments programmes have been very informative. The rather detailed presentation and discussion of the individual Hot Spot has been useful and has normally provided a sufficient basis for the country to decide if a proposal for deletion from the Hot Spot List would be relevant.

Generally individual Hot Spot documents were prepared in due time before the Workshops. The participation of representatives of the country/region where the next workshop was planned facilitated the preparation of the forthcoming RWS. The responsibility for the conclusions of the workshop as well as the press conference was shared between the host country and the Secretariat.

Some general conclusions according to the different types of Hot Spots in the countries/regions visited can be drawn as follows:

<u>Agriculture</u>

Agriculture still remains a main source of nutrients to the Baltic Sea. Despite reduction in the use of fertilisers and structural changes in several countries in transition, which in general have lead to decreased leaching from agricultural areas, the nutrient load in rivers and into the Baltic Sea is still too high.

In the Baltic States pollution from agriculture has been reduced, but there is a danger that future development of the sector could create major problems unless precautionary measures are taken.

In Russia some major pig farms in the catchment area have been closed due to economic changes, and only one large pig farm remains. The implementation of Annex III of the Helsinki Convention as well as the Code of Good Agricultural Practise should be further promoted and developed.

In Poland no new information about agricultural Hot Spots has been available but there seem to be a need for splitting the large Hot Spots into smaller and more well-defined Hot Spots.

In Denmark, Finland, Germany and Sweden different actions and plans are being implemented in order to reduce the agricultural pollution. It is for the moment not possible to judge if the measures implemented will be sufficient to reduce the nutrient losses due to the long reaction time of the systems and difficulties with monitoring the loads.

Further improvement is assumed to be achieved by:

- improved management possibilities by splitting huge agricultural Hot Spots into smaller ones,
- implementation of Annex III to the Convention,
- elaboration and implementation of national Codes on Good Agricultural Practice (GAP),
- implementation of the EU Nitrate Directive,
- application of the river basin approach in conjunction with the EU Water Framework Directive,
- development of new measures.

Coastal lagoons and wetlands

The coastal lagoons receive nutrients and hazardous substances from sources located upstream the rivers entering the lagoons. Agriculture, insufficient wastewater treatment, and industry are considered as significant sources. The pollution threatens the biodiversity and nature preservation targets of the areas etc.

The Curonian Lagoon, which is shared by Lithuania and Russia (Kaliningrad Region), receives severe pollution from industries and municipalities in Kaliningrad as well as from agriculture in the catchment area. Also, the Vistula lagoon and the Matsalu Bay and wetlands receive most of the pollution from agriculture and from insufficiently treated wastewater. Major progress has been reached in the Gulf of Riga, where the Hot Spot has been deleted. Still, the Gulf of Riga is affected by several other Hot Spots.

For dealing with social, economic, and environmental aspects within the areas, Integrated Coastal Zone Management Plans (ICZM Plans) have been developed. Further commitments, including the establishing of joint technical tools and administrative mechanisms, are needed in order to implement the ICZM Plans as a step towards deletion of these Hot Spots from the List.

The latest RWS in Poland raised the question of how to handle the Hot Spots shared by two countries.

Combined municipal and industrial polluters

This category of polluting sources encompasses urban wastewater and industrial discharges into municipal sewerage systems as well as sludge and solid waste.

In the Baltic States major improvements have been made as regards urban wastewater treatment from large municipalities. The pollution load has been reduced substantially from these sources. Still some problems are left but these do not have major effect on the Baltic Sea. In other areas there are still large problems to be solved before the Hot Spots can be deleted.

Regarding the industrial discharges to wastewater treatment plants the reduced production and closing-down of facilities has lead to a reduction in the amount of pollutants to the sewerage system.

In Poland major investments and progress has been obtained in this sector. Treatment plants have been modernised and new plants have been constructed. Also, in Germany and Sweden the construction or updating of treatment plants to full nutrient removal has been continued and completed and thereby implementing the EU Directive.

In Russia, Belarus and Ukraine the main problems relate to overloading of existing treatment plants and lack of maintenance resulting in run-down of plants. Plans for renovation and reconstruction are on the way but governmental decisions and financing are difficult. The water consumption is rather high. Proper water pricing is important in providing money for investment and operation/maintenance and at the same time reducing the water consumption and thereby the necessary capacity of treatment plants. The bad condition of sewers and the lack of sewerage systems in certain areas is a major problem in several countries.

Main obstacles, which hinder further upgrading and reconstruction in some Hot Spots, are:

- high costs for new infrastructure and updating of technology
- major investments are missing for construction/reconstruction of wastewater treatment plants and sewerage systems.

An increase in numbers of applications for deletion of Municipal & Industrial Hot Spots has already followed after the RWS and more proposals are expected for combined municipal and industrial polluters within the next few years.

Industries

Some industries have been closed down or the production has been reduced drastically due to the recession in the countries in transition. Still, there are many industries with a high pollution per unit produced and the investment in updated/clean technology is very high. Major persisting problems in particular relate to e.g. pulp & paper and metal industries. There are many small and medium-size industries which can cause problems for the municipal wastewater treatment plants.

Within different industrial plants there are still major problems, although many industries slowly but surely are closing down old polluting production units and installing modern technology or implementing new cleaner production processes. There are now some emerging proposals for deletion of Hot Spots. In Poland several industries are now ready or nearly ready for deletion from the List.

Main obstacles may be:

- lack of a national feeling of responsibility for the industrial sector,
- enforcement of legislation is still weak,
- high costs of updated cleaner technology,
- private investors are hesitating to engage themselves,

4. Conclusions

The PITF Regional Workshops were proposed in order to answer several questions on the need and possibility to re-orientate PITF and to make it more pro-active. After conclusion of the round of Regional Workshops, which covered all countries in the Baltic Sea catchment area, it can be stated that:

- HELCOM PITF is well-known and recognised in the countries;
- the basic approach of the JCP combining environmental policy and investment has been confirmed;
- the List of Hot Spots has proved to be a very efficient political tool;
- the direct involvement of Hot Spot "owners" in the RWS has increased the awareness;
- the press conferences in conjunction with the RWS provide relevant information to the public, the politicians, and the business community.

The low level of investments in municipal infrastructure in some areas as well as in industry is a reflection of an unsatisfactory status of the related regulatory framework and of outdated technology. Many industrial plants and sewage treatment plants require huge investments. Reforms are urgently needed in order to promote the principle of water pricing and full cost-recovery as the basis for the economy of municipal enterprises. This will include realistic tariffs as well as application of sound budgeting practices. The difficulty is to balance the economic capacities of the consumers and industry with a pricing system enabling recovery of investment and operation costs. Too rapid adaptation of tariffs may have negative social and economic consequences which must be avoided.

For the countries in accession to the European Union the EU legislation, such as the Urban Wastewater Directive, has been important for the development. The EU Water Framework Directive, the IPPC Directive, and other relevant directives will be important for improving the situation regarding many hot spots also in future.

The accomplishments within the framework of PITF have been more satisfactory than can be judged from the number of Hot Spots at present deleted from the List (34). Reduction of emissions and discharges, investment figures, and other parameters/figures should be used for indicating the way the individual Hot Spot has already passed towards deletion.

An adjustment of the originally defined Hot Spots, based on the gained experience during the last years, could be considered, in particular as regards the complex large marine ecosystems and large agricultural Hot Spots.

The progress and the results in implementing the JCP are encouraging. This includes a change of attitude of the responsible actors with regard to integrating environmental aspects into their decision-making.

While trying to remove the obstacles on the way to implementing fully the JCP the HELCOM PITF cannot avoid taking into account contradictory results, which could be formulated as:

- Some Hot Spots are upgraded enough in order to consider applying for deletion but owners/local authorities are afraid of loosing the governmental support for further action;

- Not any or very few external investors are at present found for industries/factories with out-dated equipment, but closing-down the Hot Spot might create a social problem in the municipality or even in the region.

The PG has noticed that due to the way the List of Hot Spots was established in 1992, based on the studies and quality of data available, not all important sites were included in the List. The development, the increase of experience, and the collection of new and better data since then make it relevant to consider revising/updating the List of Hot Spots.

It can be concluded that the PITF Regional Workshops have been useful and the outcome satisfactory compared to the resources spent. The RWS has increased the awareness of the JCP activities and provided updated, direct information and contacts about the Hot Spots. Possibly the discussions at the workshops have facilitated the last years proposals for changes in the List of Hot Spots. It is recommended that another round of RWS be conducted again after some years.

Chairmen Conclusions of the

HELCOM PITF Regional WORKSHOP

held in Riga, Latvia, 24-25 May 2000

1. In the light of recent developments HELCOM has advised PITF to reconsider its focus of activities and has established a Preparatory Group to highlight relevant issues to be taken into account.

   The Preparatory Group has - as a first step - proposed a series of regional workshops with representatives from the local, regional and national level.

   At the invitation of Latvia the first pilot workshop has held in Riga on 24-25 May 2000.
./1 The List of Participants is attached as Attachment 1 to the Report.

2. The Workshop was welcomed and addressed by Mr. G. Pukitis, State Secretary of the Ministry of Environmental Protection and Regional Development of Latvia.

3. The Meeting elected Mr. Göte Svenson, Chairman of the HELCOM PITF, and Mr. Rolands Bebris, Latvia, as Chairman and Co-Chairman of the Workshop, respectively.

4. The Meeting was addressed by key-note speakers from Latvia (Rolands Bebris) as well as of the IFI´s (Inesis Kiskis, World Bank).

5. The Workshop noted that the accomplishments in Latvia within the framework of JCP
./2 have been very satisfactory (Attachment 2). The absence of decisions to delete Hot Spots from the list does not properly reflect the progress made in Latvia. Nevertheless a number of environmental problems needs to be further attended to.

6. The finding of the Workshop confirmed the soundness of the basic approach of the JCP. This should serve as a memento against undertaking too drastic changes in the methods of work of PITF.

7. The instrumental role of legislative and institutional developments to enable successful implementation of JCP element 3 was emphasized.

8. The Workshop strongly recommended an adjustment of original Hot Spots definitions to present realities taking into account in particular the complexity of large marine ecosystems.

9. The special problems of agriculture as a main polluter of the Baltic Sea call for stronger attention.

10. The Workshop while underlining the importance of continued government coordination and engagement in investment activities expressed the view that increasing involvement of the private sector in JCP implementation is desirable as well as delegation of responsibility to the municipalities.

11. In order to strengthen coordination between the PITF activities and bilateral cooperation in the Baltic Sea environmental field it is desirable to invite PITF to Baltic Donors meetings.

12. The Workshop recommended to hold a series of Workshops as proposed by the Preparatory Group keeping in mind the importance of involving sectorial authorities in particular in agriculture and industry with the view to strengthening an integrated approach.

Necessary actions towards deletion of Hot Spots in Latvia

Hot spot Nr.	Hot spot name / type	State	Project presence	Planned investments	Necessary actions	Proposal for deletion
37	The Gulf of Riga Mgt (Latvia/Estonia), Mgt Programme		State monitoring programmes according to COMBINE programme of HELCOM; Integrated Coastal Zone Mgt. (ICZM) Projects; Development of GIS database for Coastal zone Investment strategy for coastal zone	No	1) Elaborate a deletion mechanism for "Large ecosystem Hot spots" in connection with HELCOM 4th Periodic assessment; 2) Establish closer cooperation with Estonia (Bilateral Commission etc.); 3) Continue and develop marine environment monitoring programme, with emphasis to coastal environment; 4) Improve the reliability of PLC data	**After 2001**
38	Sloka Pulp & Paper Mill, (Jurmala). Pulp & paper industry	Production ceased, equipment dismantled, recommencing of pulp production is not planned. The WWTP - on a base of contract – is used by Jurmala municipality water enterprise.	Assessment of options for future development of Jurmala city water services and WWT, incl. Sloka WWTP, in the framework of state programme "800+"		1) Take a decision on the future of Sloka WWTP 2) Elaboration of investment programme for Jurmala city water services and WWT development 3) Safe disposal of industrial wastewater sludge	**2001**
39	A/S Olainfarm (Olaine). Pharmaceutical industry	Privatised in 1997. Emissions reduced significantly due to changes in production patterns. WWTP of the enterprise for industrial and municipal treatment Problems: Hazardous	Introduction of ISO quality standards		1) To carry out detailed investigation on groundwater contamination and status of deep drills (incl. monitoring and modelling). 2) Safe disposal of hazardous waste in appropriate landfill	**After identified problems will be solved** (step 3 of the Criteria)

		chemical waste disposal and historical pollution of soil and groundwater still unsolved. According to EIA, Olaine - one of possible sites of hazardous waste landfill.				
40	Agriculture and Livestock Farming. Agricultural runoff programme for Latvia	Pollution load has decreased, however, there is trend of increase of the nutrient run off in the central Latvia. Large animal farms- hot spots with heavy impact on water quality.	Agricultural runoff monitoring programme for small catchments (international projects and Environmental Protection Fund budget)	No permanent state financing	1) Monitoring of agricultural runoff in the Daugava river basin; 2) Assistance of PITF via WGA and GEF BSRP component 2 3) Further cooperation between ministries of Environmental Protection and Agriculture	**To keep on the list**
42	Riga WWTP (Phase II). Municipal	Daugavgriva WWTP commissioned. Management of fixed problems started.	Riga Water and Environment Project planned to be completed until the end 2000.	According to the Project	1) actions according to existing Project plan 2) construction of sludge depository and establishment of composting fields – tasks for nearest future.	**Beginning of 2001**
43	VEF Plant (Riga). Industry (metals)	All galvanic shops in VEF are dismantled, the object does not correspond to initial definition of hot spot and coudn`t be considered as a polluter of the Baltic Sea any more.			1) Safe disposal of 3 tons of hazardous waste in appropriate landfill after its construction	**End of 2000**
44	RER Plant (Riga). Industry (metals)	It`s possible to fulfil HELCOM requirements on heavy metals content in wastewater at the existing low production capacity. In case of successful privatisation of the plant, increase in production amounts and pollution is possible.	No	No	1) Safe disposal of hazardous waste in appropriate landfill 2) Disposal of industrial sludge in special site	Depending on future developments in privatisation and production

45	Various industrial plants (Riga). Industry	Significance as hot spot is decreased due to changes in industrial sector, completion of Riga WWTP and developments in environmental legislation. Some of the most significant industrial pollution sources are not conneced yet to Riga WWTP.	Introduction of cleaner technologies and quality systems ISO 9000, ISO 14000 etc.	No	1) Connection of all enterprises on the left bank of the Daugava river to Riga WWTP: - carry out preparatory works for pump station building. 2) Safe disposal of hazardous waste in appropriate landfill after its establishment	**2003**
46	Daugavpils WWTP. Municipal	Biological Treatment Plant (phosphorus removal) to be commissioned in mid June 2000.	Daugavpils Water and Sewerage System Project (1996- 2001). Phase 2 (planned; 2000 – 2010)	According to project	1) establishment of safe sludge disposal fields according to environmental requirements 2) construction of biological treatment plant with Nitrogen removal (completion until 2010)	**After 2010**
48	Liepaja City and Harbour. Municipal (wastewater treatment). Oil combatting	- Reconstructed WWTP (according to HELCOM requirements) commissioned in 1998. - Karaosta district (territory of harbour) – former military site - is not connected to WWTP (3,5% untreated wastewater into the Baltic Sea) – Karaosta canal – mostly polluted area in harbour and Liepaja city	- Liepaja Water and Environment Project (Phase 1, 1995 – 1999). - Phase 2 launched in 1999. - Project on further treatment, disposal and use of wastewater sludge (planned). - Project "Elimination of the Pollution of the Karaosta Canal". - Programme for Port reception facilities in elaboration ((2001 – 2003)	0,5 M LVL 5,5 M LVL (financing sources for 3,379 M LVL unknown) Total 1,5 M LVL (currently available 0,25 M LVL)	1) Connection of Karaosta district (former military site) to WWTP 2) Start implementation of the Project on Sustainable development of the Karaosta district 3) Construction of boundary wall in Karaosta canal for deposition of polluted soil. 4) development of projects in harbour according to projects plans.	**2005**

Second HELCOM PITF Regional Workshop
Vilnius, Lithuania
26 - 27 October 2000

CONCLUSIONS

1. In the light of recent developments HELCOM PITF is reconsidering its focus on activities and has established a Preparatory Group to highlight relevant issues to be taken into account.

   PITF has encouraged the Preparatory Group to continue arranging Regional Workshops in collaboration with governments and representatives from the local, regional and national level.

2. At the invitation of Lithuania the Second PITF Regional Workshop was held in Vilnius on 26-27 October 2000. The Agenda of the Workshop as well as the List of Participants are attached as Annexes 1 and 2, respectively.

3. The Workshop was welcomed by Mr. Danius Lygis, Lithuanian Minister of the Environment.

4. The Meeting elected Mr. Göte Svenson, Chairman of the HELCOM PITF, Mr. Arturas Daubaras, Vice-Minister of the Environment, and Mr. Evaldas Vebra, Lithuania, as Chairman and Co-Chairmen of the Meeting, respectively.

5. The Meeting set up a Drafting Group for formulating the Draft Conclusions of the Workshop to be agreed upon at the end of the Workshop. The Group was composed of Mr. Arturas Daubaras, Mr. Evaldas Vebra and Mr. Ulrich Kremser, the latter one being the Rapporteur.

6. The Meeting was addressed by key-note speakers from Lithuania (Mr. Arturas Daubaras) and from the International Financial Institutions (Mr. Tord Holmström, NIB).

7. Mr. Arturas Daubaras described the environmental situation in Lithuania and drew attention to environmental quality problems, main trends, and investment policy issues, which would be considered in more detail together with the Hot Spots matters. In addition the Workshop is expected to contribute to the consideration of the new role of PITF regarding facilitation of financial support, planning, and resource mobilization activities. It seems obvious that some Hot Spots do not correspond to the Criteria any more.

   Since Lithuania seeks accession to the European Union, immense financial resources and efforts are allocated to fulfill the requirements of the EU Directives.

8. Mr. Tord Holmström, who represented the IFIs being Members of PITF, underlined the problem areas identified by the IFI community:

   - Institutional capacity for preparation, appraisal and implementation needs to be strengthened. Individual assistance to sector ministries is often less effective than might be assistance to one central unit for project management, which could serve several sectors and achieve enough critical mass to become sustainable;

   - Public Investment Programs in combination with interventions by technical and financial review committees make project preparation long and cumbersome;

- Affordability is often in conflict with the environmental requirements. Phased implementation can be a solution but is looked upon with skepticism by Ministries of Environment;

- The establishing of EU accession funds has caused great confusion and delays in implementation. There is an obvious risk that the Baltic countries might receive less than expected due to the combination of small, scattered projects and low institutional capacity;

- Compliance with national and international procurement laws has been problematic and has hampered implementation of several projects;

- Energy has, notwithstanding its importance for the economy and great environmental impact, been excluded from ISPA support. Unfortunately, that also leads to less support from governments for this important sector;

- Punctual provision of promised budget support from central authorities needs to be more adequately organized.

9. It was noted that the Vice-Minister Mr. Arturas Daubaras, as a representative of the Ministry of the Environment and the Lithuanian Government, did not agree with the identification of problem areas presented by Mr. Tord Holmström.

10. The Workshop took note of the information given on the assessment of the 16 Lithuanian Hot Spots.

By site type the 16 Hot Spots in Lithuania belong to municipal and industrial waste- water treatment (9 Hot Spots; Nos 41, 51, 53, 55, 57, 58, 59, 61, 63), industry (5 Hot Spots; Nos 52, 54, 56, 62, 64), Agriculture (1 Hot Spot, No. 60) and Coastal Lagoon (1 Hot Spot shared with Russia, Kaliningrad Region; No. 66).

The existing legal and institutional framework is considered as a pre-condition for proper dealing with the Hot Spots. The adjustment to EU Water Framework Directive, for example, is a challenge and will require a revision of the whole water management system in Lithuania.

Hot Spots related to urban waste-water treatment plants and industrial discharges

Major improvements have been made as regards urban waste-water treatment and reduction of industrial discharges.

Main obstacles which hinder upgrading and reconstruction are as follows:

- Construction of urban waste-water treatment plants requires major financial investments. A considerable part of construction and maintenance costs has to be paid by the water users, thus very rapid process might have negative social and economic consequences;

Despite all the difficulties some of the Hot Spots have already reduced the pollution to levels to start discussion about deleting them from the List of Hot Spots, for example Jonavos Achema, Kedainiu Lifosa, Alytus and Klaipeda WWTPs. The Progress achieved in the Kaunas urban waste-water treatment plant should also be mentioned.

Actions defined towards deletion of Hot Spots are listed for each of the remaining Hot Spots (Annex x). The upgrading, reconstruction and construction of waste-water treatment plants, however, need huge amounts of investments.

Agricultural Hot Spots

Agriculture still remains a main polluter of the Baltic Sea. Despite reduction in use of fertilizers during the past years the nutrient load in rivers is still very high. Agriculture in Lithuania is considered to be a big source of nutrients transported into the Curonian Lagoon.

In the long run improvement of environmental management at farm level, including implementing Annex III of the Helsinki Convention, the Code for Good Agricultural Practice, and the approximation of the EU Nitrate Directive are expected to lead to decreased nutrient run-off.

Coastal Lagoons

The Curonian Lagoon, which is a Hot Spot shared by Lithuania and Russia (Kaliningrad Region), receives most of the nutrients and harmful substances from sources located upstream the rivers, including Belarus, flowing to the Lagoon. Agriculture, insufficient waste-water treatment, and industry are considered as significant sources.

For dealing with social, economic, and environmental aspects within the area, Integrated Coastal Zone Management Plans on both the Lithuanian and Russian parts have been developed. Further commitments,including the establishing of joint administrative mechanisms, are needed in order to implement the ICZMPs as a step towards deletion of the Hot Spot from the List.

11. After having heard the qualified presentations the Workshop supported the wish of several participants to compile the presentations to be published at a later stage.

12. The Workshop noted that the accomplishments in Lithuania within the framework of PITF have been very satisfactory. The absence of decisions to delete Hot Spots from the list does not properly reflect the progress made in Lithuania. Nevertheless a number of environmental problems need to be further addressed.

13. The Workshop recommended an adjustment of original Hot Spots definitions to present realities and encouraged all parties involved into work of upgrading and reconstructing Hot Spots towards deletion to continue enquiring possible changes in the list of Hot Spots.

14. The Workshop underlined the importance of government coordination and engagement in investment activities but stressed the need for increasing involvement of the private sector in JCP implementation as well as delegation of responsibilities to the municipalities.

15. The Workshop stressed that PITF should consider practical steps towards increased involvement of the private sector, *e.g.,* by identifying some mechanisms which could serve as a link between governments, HELCOM and the private sector.

16. The Workshop welcomed the offer by Lithuania to compile an assessment of the Lithuanian Hot Spots as well as of the findings in a Thematic Report.

Third HELCOM PITF Regional Workshop
Tallinn, Estonia
1 - 2 March 2001

CONCLUSIONS

1. In the light of recent developments HELCOM PITF is reconsidering its focus on activities and has established a Preparatory Group to highlight relevant issues to be taken into account.

   PITF has encouraged the Preparatory Group to continue arranging Regional Workshops in collaboration with governments and representatives from the local, regional and national level.

2. At the invitation of Estonia the Third PITF Regional Workshop was held in Tallinn on 1-2 March 2001. The Agenda of the Workshop as well as the List of Participants are attached
./1-2 as Annexes 1 and 2, respectively.

3. The Workshop was welcomed by Mr. Harry Liiv, Deputy Director General of the Estonian Ministry of the Environment.

4. The Meeting elected Mr. Göte Svenson, Chairman of the HELCOM PITF, and Mr. Harry Liiv, Ministry of the Environment, as Chairman and Co-Chairman of the Meeting, respectively.

5. The Meeting set up a Drafting Group for formulating the Draft Conclusions of the Workshop to be agreed upon at the end of the Workshop. The Group was composed of Mr. Egon Piht and Mr. Ulrich Kremser, the latter one being the Rapporteur.

6. The Meeting was addressed by key-note speakers from Estonia (Mr. Harry Liiv/Mr. Marko Tuurmann) and from the International Financial Institutions (Mr. Roland Randefeldt, NIB).

7. Mr. Marko Tuurmann, Estonia, described the environmental situation concerning water-related issues in Estonia and drew attention to water consumption and water quality problems in connection to mainly point - source pollution as well as the pollution taxation system in the country. It was stressed that

   - HELCOM Recommendations on industrial and municipal wastewater treatment are integrated into Estonian legislation;

   - Estonia, donor countries and IFIs invested more than 700 million EEK to minimize pollution load from Hot Spots. Pollution by organic material has been reduced by 60% during the period 1992 - 1999;

   - actions to minimize non-point source and point-source pollution will be taken in accordance with the principles formulated in the EU Water Framework Directive (WFD);

   - the establishment of Baltic Sea protection targets and regional river basin management plans for achieving high water quality standards are considered to be relevant issues for the future work of PITF.

8. Mr. Roland Randefelt, NIB, who represented the IFIs being Members of PITF, reported on challenges in environmental investments in Estonia. He in particular addressed

- Wastewater Projects with many good examples but the concern that several local authorities of Estonia might lack institutional capacity to prepare, appraise and implement the small sized projects;

- Increased demand of modern and efficient waste management;

- Air emission issues, in particular the ambitious investment plan by the Company Eesti Energia;

- The question of affordability which is often in conflict with the ambitious environmental plans;

- Procurement which is getting more complex with the involvement of the EU, the IFIs and domestic donors;

- Requirements from EU funds demanding grouping of projects and strong institutional capacity;

- Conflicting requirements by EU Directives on one hand and the IMF rules on the other hand.

./3 The statement by Mr. Roland Randefelt is annexed to the Conclusions.

9. The Workshop took note of the information given on the assessment of the 10 Estonian Hot Spots.

By site type the 10 Hot Spots in Estonia belong to municipal and industrial wastewater treatment (5 Hot Spots; Nos 26, 28, 31, 33, 34), industry (2 Hot Spots; Nos 25, 27), agriculture (2 Hot Spots, No. 30, 36) and coastal lagoon (Hot Spot No. 32).

The existing legal and institutional framework is considered as a pre-condition for proper dealing with the Hot Spots. The adjustment to EU Water Framework Directive, for example, is a challenge and will require a revision of the whole water management system in Estonia.

Hot Spots related to urban wastewater treatment plants and industrial emissions and discharges

Major improvements have been made as regards urban wastewater treatment and reduction of industrial emissions and discharges connected to wastewater treatment plants.

Main obstacles which hinder further upgrading and reconstruction are connected with high costs for updating technology needed for dealing properly with oil shale and ash (Narva Power Plant). Other problems mentioned are related to scattered treatment facilities, difficulties to connect houses to the wastewater treatment facilities, over-sized treatment plants and insufficient loan agreements.

HELCOM Recommendations are seen as the technical standards to be met. Despite all the difficulties some of the Hot Spots have already reduced the pollution to levels to start discussion about deleting them from the List of Hot Spots immediately or after some additional actions have taken place, for example Kehra, Haapsalu, Pärnu, Paide and Tallinn.

A list of actions defined towards deletion of Hot Spots will be prepared later.

Agricultural Hot Spots

Agriculture still remains a main polluter of the Baltic Sea. In Estonia big structural changes combined with remarkable reduction in use of fertilizers and decreased numbers of animals (in particular of pigs and cattle) during the past years have lead to reduced leaching of nutrients from agricultural areas.

The Annex III to the Helsinki Convention has been almost implemented and the Code for Good Agricultural Practice has been elaborated. Estonia considers to propose the revision of both agricultural Hot Spots in 2001, i.e. to apply for deletion and to propose one or several new ones (e.g. a huge piggery).

Coastal Lagoons

The Matsalu Bay and wetlands within the catchment area of the Bay receive most of the nutrients from agricultural sources and insufficient wastewater treatment, which threaten the biodiversity and nature preservation targets of the area.

For dealing with social, economic, and environmental aspects within the area an Integrated Coastal Zone Management Plan has been developed. The catchment area corresponds to the structure required by the WFD, i.e., this tool can be applied easily for further improvement of the situation taking into account the already elaborated ICZMPs.

10. The Workshop noted that the accomplishments in Estonia within the framework of PITF have been very satisfactory. The absence of decisions to delete Hot Spots from the list does not properly reflect the progress made in Estonia. Nevertheless a number of environmental problems need to be further addressed.

11. The Workshop recommended an adjustment of original Hot Spots definitions to better reflect realities.

12. The Workshop expressed the wish that Estonia in cooperation with the Secretariat should compile an assessment of the Estonian Hot Spots as well as of the findings in a Thematic Report.

CHALLENGES IN ENVIRONMENTAL INVESTMENT IN ESTONIA

Mr. Roland Randefelt, Nordic Investment Bank

WASTEWATER PROJECTS

There is a concern that Estonia might lack institutional capacity to prepare, appraise and implement the small sized projects within wastewater treatment and waste management. It has been observed that individual assistance to sector ministries is often less effective than might be assistance to one central unit for project management, which could serve several sectors and achieve enough critical mass to become sustainable.

Institutional capacity for preparation, appraisal and implementation needs to be strengthened. Hopefully the strengthening of the recently established Estonian Environmental Investment Centre, KIK, will provide some relief.

WASTE MANAGEMENT

Some of the future sector challenges are the huge needs for modern and efficient waste management in Estonia. Old leaking and in some cases illegal landfills must be closed and cleaned up. Modern efficient and environmentally safe waste management systems need to be introduced. This work has already begun. In Tallinn there are already plans for new waste management. Again, the challenge is to deal with the large number of small and scattered waste projects.

RECEPTION FACILITIES FOR HARBOURS

According to international law all ports in the Baltic Sea area must now be able to handle all ship-generated waste. However, in practice not all ports do have all the needed equipment to receive and handle ship-generated waste. This is another area, which must be studied further. NIB and NEFCO have earlier conveyed an offer to finance bankable ports in Estonia, whether such a financial need would be apparent. Last years oil spill outside Muuga also showed that there must be an authority responsible for oil spill combating and there must be a clear division of responsibilities as well as having functioning emergency plans.

AIR EMISSION ISSUES

Air emission is another issue, which has been dealt with in several ways in Estonia. The Estonian energy company Eesti Energia has a ambitious investment plan to modernise both energy production at its plants in Narva, as well as modernise and upgrade distribution. The environmental benefits are huge, particularly regarding reduction of sulphur emissions. NIB is one of the financiers of Eesti Energia´s investment programme.

Kunda Cement is another success story, financed by IFC, NEFCO and NIB. Dust emissions have been reduced to a small fraction what is was some 5-6 years ago.

AFFORDABILITY CRITERA OFTEN NEGLECTED

Affordability is often in conflict with the environmental requirements. In many cases, particularly in rural areas, there is a large portion of the population living on rather low income. In order to achieve the environmental requirements in one single investment phase, the investment becomes often too expensive to be repaid by tariffs. Phased implementation can be a solution.

REQUIREMENTS FROM EU FUNDS MAY CAUSE DELAYS

The establishing of EU accession funds has caused confusion and delays in implementation in Poland and the three Baltic States. There is an obvious risk that the Baltic countries might receive less than expected due to the combination of small, scattered projects and low institutional preparation and implementation capacity at national level. The EU ISPA facility is supposed to only finance projects of certain minimum size. Particularly in the three Baltic States it can be a problem to achieve eligible project sizes without grouping them together. The prerequisite for grouping again, is a rather strong institutional capacity at national level.

PROCUREMENT GETTING COMPLEX

Compliance with national and international procurement laws has been problematic and has hampered implementation of several projects. Also IFIs have different procurement rules. If a project is co-financed by EU funds, generally only companies from EU countries and the project country can participate. Again if for instance the World Bank is participating, the procurement must be open, international and according to WB procurement rules. The more financiers, the more complicated the procurement gets. In addition to this, domestic suppliers are often favoured or preferred by the project owners or even required by national legislation in some cases, if public funds are used. The participation of bilateral donors often make procurement even more difficult in that grants are mostly provided towards restricted procurement agreements. Harmonisation of procurement rules would make procurement less problematic.

ESTONIA SQUEEZED BETWEEN EU AND IMF

EU accession countries are somewhat squeezed between on one hand the requirements of the EU directives, which increases the need of major public investments and on the other hand limitations in public spending set by the IMF. In several cases budgeted state support has been delayed, which have delayed or even stopped the project implementation. Punctual provision of budget support from central authorities therefore needs to be more adequately organised.

Fourth HELCOM PITF Regional Workshop
Kaliningrad, Russia
23 - 24 April 2001

CONCLUSIONS

1. In the light of recent developments HELCOM PITF is reconsidering its focus on activities and has established a Preparatory Group to highlight relevant issues to be taken into account.

   PITF has encouraged the Preparatory Group to continue arranging Regional Workshops in collaboration with governments and representatives from the local, regional and national level.

2. At the invitation of Russia the Fourth PITF Regional Workshop was held in Kaliningrad on 23-24 April 2001. The Agenda of the Workshop as well as the List of Participants are
./1-2 attached as Annexes 1 and 2, respectively.

3. The Workshop was opened by Mr. Yuri Tsybin, Chairman of the Committee of Natural Resources for the Kaliningrad Region, and welcomed by Mr. Tadej Mazepa, Vice-Governor of the Kaliningrad Region Administration.

4. The Meeting elected Mr. Göte Svenson, Chairman of the HELCOM PITF, as Chairman and Mr. Dimitri Zimin, Ministry of Natural Resources of Russian Federation, and Mr. Yuri Tsybin, Chairman of the Committee of Natural Resources for the Kaliningrad Region, as Co-Chairmen of the Meeting.

5. The Meeting set up a Drafting Group for formulating the Draft Conclusions of the Workshop to be agreed upon at the end of the Workshop. The Group was composed of Mr. Nikolai Krouglikov, Russia, and Mr. Ulrich Kremser, Helsinki Commission, the latter one being the Rapporteur.

6. The Meeting was addressed by key-note speakers from Russia/Kaliningrad Region (Mr. Vladimir Litvinenko) and from the International Financial Institutions (Mr. Inesis Kiskis, the World Bank).

7. Mr. Vladimir Litvinenko, Russia/Kaliningrad Region, described the environmental situation in the Region and drew attention to water-related issues in connection to mainly point-source pollution. However, one of the newly-emerging problems is related to increased transportation and proper handling of solid waste in the City of Kaliningrad and in the Region. It was stressed that despite of the progress in reducing emissions and discharges a lot of environmental problems still remain unsolved. Russia and the authorities in the Kaliningrad Region make increased efforts to implement the HELCOM Recommendations.

8. Mr. Inesis Kiskis, the World Bank, who represented the IFIs being Members of PITF, reported on the approach of IFIs for financing environmental projects in the Baltic Sea Region. He in particular addressed
   - the special features of the Banks involved;
   - the terms of loans;
   - government priorities;
   - main principles for financing environmental projects.

   Based on the experience gained the difficulties are
   - original agreements to be honoured;
   - immediate compliance with environmental effluent standards is unrealistic, phased implementation is therefore necessary;
   - to be realistic in assessing the required capacity of wastewater treatment plants and landfills;
   - timely provision of counterpart funding.

9. The Workshop took note of the information given on the assessment of the nine Hot Spots located in the Kaliningrad Region.

   By site type the nine Hot Spots in Kaliningrad Region belong to:
   - municipal and industrial wastewater treatment (1 Hot Spot No. 67),
   - industry (4 Hot Spots; Nos 49, 50, 69, 61),
   - hazardous waste (1 Hot Spot, No. 70),
   - agriculture (1 Hot Spot, No. 72), and
   - coastal lagoons and wetlands (2 Hot Spots; Nos 66, 73).

   The existing legal and institutional framework is considered as an adequate pre-condition for proper dealing with the Hot Spots.

   Hot Spots related to urban wastewater treatment plants and industrial emissions and discharges

   Progress has been made as regards municipal and urban wastewater treatment and reduction of industrial emissions and discharges.

   Main obstacles which hinder further upgrading and reconstruction are connected with lacking investment and high costs for updating technology.

   The project for upgrading the Kaliningrad Wastewater Treatment Plant (WWPT) to address the city's needs and to meet environmental standards is under implementation. The investments are provided by the European Bank for Reconstruction and Development, the Nordic Investment Bank, Nordic Environmental Finance Corporation bilateral donors of Denmark and Sweden, as well as national and local grants. The WWTP is expected to be in use in 2005, but it will increase the tariff burden of the inhabitants. However, a large grant component provided for this particular project shall smooth the tariff increase.

   The three pulp and paper mills (Hot Spot Nos 49, 50 and 69) are partly reconstructed and thus reduced the pollution load into the environment. To make them environmentally friendly calls for further investments, which seem to be difficult to negotiate. To facilitate investments, in particular by external funding, it is necessary to meet the HELCOM Recommendations and to arrive at environmental technologies corresponding to those applied within the European Union, at least in the northwestern Russia.

A list of actions defined towards deletion of Hot Spots will be prepared later and put into a Thematic Report.

Agricultural Hot Spots

Agriculture still remains a main polluter of the Baltic Sea. Large parts of the territory of the Kaliningrad Region are drained and the rivers transport huge amounts of nutrients into the Curonian and Vistula Lagoons. An integrated approach shall be applied to the management of drainage systems and wetlands both for the Nemunas and Pregol river basins in order to secure sufficient buffering of nutrients and nature conservation.

A closer participation within the HELCOM Working Group on Agriculture (WGA) could help to promote the implementation of Annex III of the Helsinki Convention and of the Code of Good Agricultural Practice.

Coastal Lagoons

The Curonian Lagoon and the Vistula Lagoon receive most of the pollution from agricultural sources and through insufficient wastewater treatment, which threaten the biodiversity and nature preservation targets of the area.

For dealing with social, economic, and environmental aspects within the areas Integrated Coastal Zone Management Plans have been developed and bodies have been established for elaborating action programmes.

The existing Integrated Management Plans shall be updated taking into account basic principles of the EU Water Framework Directive. Further on the Directive will probably have a big influence on the implementation of the action plans.

10. The Workshop reflected some progress in Russia/Kaliningrad Region within the framework of PITF. However, a number of environmental problems need to be further addressed.

11. The Workshop expressed the wish that Russia/Kaliningrad Region in cooperation with the Secretariat should compile an assessment of the Hot Spots of the Region as well as of the findings in a Thematic Report.

Fifth HELCOM PITF Regional Workshop
St. Petersburg, Russia
13-14 June 2001

CONCLUSIONS

1. In the light of recent developments HELCOM PITF is reconsidering its focus on activities and has established a Preparatory Group to highlight relevant issues to be taken into account.

   PITF has encouraged the Preparatory Group to continue arranging Regional Workshops in collaboration with governments and representatives from the local, regional and national level and the International Financial Institutions (IFIs).

2. At the invitation of the Russian Federation the Fifth PITF Regional Workshop was held in St. Petersburg on 13-14 June 2001. The Agenda of the Workshop as well as the List
./1-2 of Participants are attached as Annexes 1 and 2, respectively.

3. The Workshop was opened by Mr. Dimitri Zimin, Ministry of Natural Resources of the Russian Federation, and welcomed by Mr. Alexey Frolov, Department of Natural Resources of the North-Western Region and Mr. Anatoliy Baev, Department on Protection of the Environment of St. Petersburg Administration.

4. The Meeting elected Mr. Göte Svenson, Chairman of HELCOM PITF, as Chairman and Mr. Dimitri Zimin and Mr. Alexey Frolov as Co-Chairmen of the Meeting.

5. The Meeting set up a Drafting Group for formulating the Draft Conclusions of the Workshop to be agreed upon at the end of the Meeting. The Group was composed of Mr. Leonid Korovin and Ms. Galina Tsvetkova from Russia and Mr. Ulrich Kremser from the Secretariat of the Helsinki Commission, who also acted as the Rapporteur.

6. The Meeting was addressed by key-note speakers from Russia/Leningrad Region (Mr. Alexey Frolov) and from the International Financial Institutions (Mr. Jaakko Henttonen, European Bank for Reconstruction and Development, EBRD).

7. Mr. Alexey Frolov, Russia/Leningrad Region, described the environmental situation in the Region in the context of natural water courses and lakes as well as of the needs of the city of St. Petersburg. Most pressing problems are concentrated to water supply and municipal wastewater treatment, the emissions and discharges from the pulp and paper mill “Syasstroi” and “Volkhov Aluminium” as well as to the hazardous waste disposal “Krasny Bor Landfill”. In general the environmental situation has been improving since 1992 but a lot remains to be done. With the improvement of the Russian economy an accelerated implementation of the JCP and deletion of the Hot Spots in the Leningrad Region can be expected.

8. Mr. Jaakko Henttonen, Principal Banker from EBRD, representing the IFIs and being Vice-Chairman of HELCOM PITF, highlighted some of the main trends related to Russian economy in general and to needs in investments in infrastructure in particular. The EBRD level of activity will be increased to 1.0 billion Euros in Russia (about 30% of the annual commitment of the EBRD) in the nearest years, which illustrates a stable partnership with Russia.

The low level of investments in municipal infrastructure as well as in industry is a reflection of an unsatisfactory status of related regulatory framework. Reforms in sector are urgently required to promote the principle of full cost-recovery as the basis for economy of municipal enterprises. This will include realistic tariffs as well as application of sound budgeting practices. President Putin's attention for the reform is a welcomed development.

"Vodokanal St. Petersburg" has been a solid partner for the EBRD with donor support from countries, i.e., Finland, Sweden, Denmark, the United Kingdom, Germany and France, in developing its technical and financial programme. It has been proved that their sound economy will form a solid base for future investments.

The most important present investment at Vodokanal is the SW wastewater treatment plant, which will by and large solve the problems with wastewater related Hot Spots of St. Petersburg. For that purpose a significant international partnership has been formed with the participation of EBRD, NIB, NEFCO, Finland, Sweden, Denmark, European Community and, ultimately, the EIB with its first involvement in Russia.

Solutions to the JCP Hot Spots as well as other key environmental issues in Russia require national reforms to benefit from the available investment funding by the IFIs and private investors. Donor funding has been crucial to enhance the project preparation and institutional management development. The Northern Dimension Environment partnership will pave way for a coordinated co-operation to meet the HELCOM goals within its comprehensive programme.

9. The Workshop took note of the information given on the assessment of the nine Hot Spots located in the Leningrad Region.

By site type the nine Hot Spots in Leningrad Region belong to:
- municipal and industrial wastewater treatment (4 Hot Spots; Nos 18, 19, 20, 21),
- industry (3 Hot Spots; Nos 14, 15, 22),
- hazardous waste (1 Hot Spot, No. 23), and
- agriculture (1 Hot Spot, No. 24).

10. The Meeting noted with appreciation that the well-prepared documentation was elaborated in both English and Russian languages giving a solid basis for the discussion.

11. **Hot Spots related to urban wastewater treatment plants and industrial emissions and discharges**

Progress has been made as regards municipal and urban water supply and wastewater treatment under the responsibility of "Vodokanal St. Petersburg" from 1992 until the year 2000. General improvement of the situation can be stated (Hot Spot Nos 18, 19, 20 and 21). It concerns the construction of a sewer connection, treatment of municipal and industrial wastewater as well as phosphorus removal. Russia has applied for the deletion of Hot Spot No. 21 from the list and the matter is still under consideration within HELCOM. Timetables for the remaining three Hot Spots on how to proceed towards deletion are elaborated. The needed investments seem to be secured/allocated.

Due to the efforts taken (within the 18 largest plants out of ca. 200) the discharges of heavy metals from metal plating industry (Hot Spot No. 22) have been reduced significantly. Implementation of several new technologies under LIFE projects with the participation of partners from the Baltic region to a major extent helped in solving the problems of reducing pollution from metal plating production. Some plants were closed down and the reduction of pollution load is mainly dedicated to decreased production by

economic depression and to a lesser degree to technical improvements. The reduced discharge figures seem to meet the HELCOM Recommendation's requirements.

The "Krasny Bor Landfill", Hot Spot No.23, is processing and depositing toxic industrial waste since 30 years using mainly outdated technology. Since 1992 some improvements have been made but there is an urgent need for a new plant. The number of pits is reduced from ten to six but the territory of the landfill is fully used, which is regarded as a potential threat to the environment and to the water supply of St. Petersburg. Additionally the handling of toxic waste in the Leningrad Region is considered to be inadequate. Several programmes and constructions aimed at improving the management of toxic industrial waste are expected to result in conditions allowing an application for the deletion of the Hot Spot from the list in 2003/2004. The recent financing agreement of April 2001 between the City of St. Petersburg, EBRD, NEFCO and Scandinavian donors will enhance reaching the set target.

The "Volkhov Aluminium Plant", Hot Spot No. 15, produces raw aluminium, polyphosphates, etc. and generates thermal energy. In parallel to the production process in 1992 huge amounts of harmful substances were released. Despite the efforts to reduce emissions and discharges the plant is still considered as a big polluter. The problems are mainly concentrated to the lack of wastewater treatment, outdated equipment, as well as too insufficient operation of electronic filters. Resolving the remaining problems needs financing, which might be difficult to render. The best case scenario foresees the implementation of plans for resolving the problems by 2006/2007.

The "Syastroi Pulp and Paper Mill", Hot Spot No.14, is equipped with old and outdated technology. Despite the efforts to reduce pollution significant results have been achieved only regarding emissions into the air. There are plans to modernize different parts of the factory, which seems to be very costly. To get appropriate funding from the Federal Government, banks, and donors is considered as most important but at the same time difficult.

12. Agricultural Hot Spots

Five of six pig farms (Hot Spot No.24) were closed down due to economic changes in Russia during the past decade. For the time being only one pig-breeding farm with 51,000 pigs is operating. HELCOM PITF will be informed about the state of the closed-down farms. A timetable with actions towards deletion of the last remaining farm from the list of Hot Spots will be elaborated.

13. Final evaluation

The Workshop reflected progress in Russia/Leningrad Region within the framework of PITF. The start has been somewhat slow, but the results achieved are encouraging. This includes a change of attitude of the responsible actors with regard to integrating environmental aspects into their decision-making. Preparing the region for international economic competition facilitates introducing environmental aspects. The Meeting stated the importance of reducing the pollution load from the Leningrad Region to the Gulf of Finland and the Baltic Sea and stressed the importance of close co-operation of St. Petersburg Administration, Leningrad Region Government and Regional Coordination Council regarding accelerated implementation of the JCP and other HELCOM provisions/commitments.

The Workshop expressed the wish that Russia/Leningrad Regional authorities concerned, in cooperation with the HELCOM Secretariat and the PG should compile an assessment of the Hot Spots of the Region as well as of the findings in a Thematic Report.

26 September 2001

Sixth HELCOM PITF Regional Workshop
Cracow, Poland
25-26 September 2001

CONCLUSIONS

1. In the light of recent developments HELCOM PITF is reconsidering its focus on activities and has established a Preparatory Group to highlight relevant issues to be taken into account.

   PITF has encouraged the Preparatory Group (PG) to continue arranging Regional Workshops in collaboration with governments and representatives from the local, regional and national level and the International Financial Institutions (IFIs).

2. At the invitation of the Ministry of the Environment of Poland the Sixth PITF Regional Workshop was held in Cracow on 25-26 September 2001. The Agenda of the Workshop
./1-2 as well as the List of Participants are attached as Annexes 1 and 2, respectively.

3. The Workshop was opened by Ms. Bernadetta Czerska on behalf of the Ministry of the Environment, and welcomed by Mr. Bogdan Cisak, Director of the Regional Board for Water Management in Cracow .

4. The Meeting elected Mr. Göte Svenson, Chairman of HELCOM PITF, as Chairman and Mr. Dariusz Stanislawski, Ministry of the Environment, as Co-Chairman of the Meeting.

5. The Meeting set up a Drafting Group for formulating the Draft Conclusions of the Workshop to be agreed upon at the end of the Meeting. The Group was composed of Ms. Adriana Dembowska and Ms. Monika Stankiewicz from Poland and Mr. Claus Hagebro from the Secretariat of the Helsinki Commission, who also acted as the Rapporteur.

6. The Meeting was addressed by key-note speakers from the National Fund for Environmental Protection and Water Management (Ms. Anna Czyzewska), the Ministry of the Environment (Mr. Tomasz Walczykiewicz) and the Regional Board for Water Management in Cracow represented by Mr. Adam Jarzabek.

7. Ms. Anna Czyzewska, National Fund for Environmental Protection and Water Management, described the possibilities of financing environmental projects in Poland with a focus on the different forms of financial support provided by the National Fund. Water pollution control and water management is one of the financing priorities. In relation to the HELCOM JCP Hot Spots the National Fund has supported several wastewater treatment projects. Thanks to the National Fund the capacity of wastewater treatment plants increased to 5.3 million m^3/day, which is almost half of all industrial and municipal wastewater discharged into surface water.

8. Mr. Tomasz Walczykiewicz, Ministry of the Environment, gave a presentation on the legal and institutional framework for river basin management in particular in relation to the new Water Law and the Water Framework Directive.

9. Mr. Adam Jarzabek, Institute of Water Engineering and Management, Cracow University of Technology, presented the water protection strategy in the Upper Vistula River catchment basin. The presentation encompassed description of protected areas, water quality classification and the prioritization of surface water resources under special protection. The main action needed is installation of sewerage and collection systems and construction/modernization of wastewater treatment plants.

10. Information on the ten Hot Spots were delivered during eight presentations. The history and the recent development and implementation of environmental measures were described. The investments have been substantial at most of the presented Hot Spots.

    The Hot Spots in the Katowice Region are particular because the three Hot Spots are agglomerations of many industrial and municipal enterprises. The completion of the task to identify individual "sub-hot spots" will hopefully allow specific requirements to be set and regular control to be conducted facilitating environmental improvement.

    The presentations of investments in municipal wastewater treatment plants were encouraging. The activities have lead to the possibility of deletion from the List of Hot Spots within the next years.

    While the municipal wastewater treatment plants are relatively simple to evaluate the industrial Hot Spots are more difficult. Large investments have been made during the last ten years and major and impressive improvements have been reached. Some of the industries are now ready or nearly ready for deletion from the List. Specific, well-defined monitoring data for discharges and emissions should be compared with national requirements and Helsinki Convention Recommendations and, when relevant, compared with international BAT/BEP information.

11. The Workshop took note of the information given and the assessment of the present state of the Hot Spots located in the southern Poland. It was the impression that the Workshop provided more balanced and reflective information than the Annual Reports normally provide.

    By site type the Hot Spots in the southern Poland belong to:
    - municipal and industrial wastewater treatment (6 Hot Spots; Nos 88/107/108, 86, 87.1, 90) and
    - industry (4 Hot Spots; Nos 87.2, 89, 91, 92).

12. The Meeting noted with appreciation that the well-prepared documentation was elaborated in both English and Polish languages giving a solid basis for the discussion.

13. **Final evaluation**

    The Workshop reflected progress in the development of the Hot Spots in the southern part of Poland. Major results have been achieved and the development is encouraging. This includes the positive and engaged attitude of the responsible actors with regard to integrating environmental aspects into their decision-making. Still, there are tasks to do and realistic plans for future pollution reduction measures were presented during the Workshop.

    The Joint Comprehensive Environmental Programme (JCP) operates with a 20 years' implementation period, and the impression from the Workshop was that we can expect to see the deletion of the Hot Spots in this region before the end of that period.

It was observed that the combination of the environmental fee and fine system and the environmental fund system functions very well, and the Polish Government was congratulated on the successful implementation of this “carrot and stick” approach.

During the final discussion several observations were made:

- The economic impact on the enterprise’s return due to the environmental investments is to a certain degree counteracted by the amount of fines saved after the investments have been implemented;

- During the implementation of actions so far the foreign investment has been rather low (about 6%) while most investments originate from the enterprises themselves (46%). The other sources have been: the ecological funds (25%), national state and commercial banks (13%), state investments (5%) and other sources (5%). The state investments have been decreasing during the last years;

- The relatively low foreign contribution is to a certain degree surprising because one of the ideas of the JCP is to transfer resources from West to the East;

- The EU Water Framework Directive is expected to play a major role for the future environmental investments. According to the new Water Act the Polish river management plans require identification of water quality and sources of impacts (“hot spots”) and financial measures have to be identified in relation to these;

- Substantial changes in the ownership of enterprises, closing of some, and reduction of production in others as well as privatisation have lead to the improvements we observe today;

- The presentation of the Hot Spots in the Katowice Region was interesting and will lead to a proposal to the PITF on establishing sub-hot spots. Some improvement has taken place within this region but the situation is still unsatisfactory and this division might have been made earlier;

- The positive development of the environmental situation in Poland is positive not only from the view of the Baltic Sea but will result in major improvements in Poland itself.

One important outcome of the Workshop was the agreed opinion that some Hot Spots may now be ready for deletion from the List of Hot Spots. HELCOM looks forward to the Polish decisions and presentation to the next meeting of the PITF. Other Hot Spots will be ready for deletion within a few years.

The Workshop expressed the wish that the organizers of the Workshop and the regional authorities concerned, in cooperation with the HELCOM Secretariat and the PG, should compile a Thematic Report with an assessment of the Hot Spots as well as a presentation of the findings at the Workshop.

It was proposed to prepare the report after all the Polish Hot Spots are analysed. At the next possible workshop the organizers wish to present more information about foreign investments, the effect of the fee/fine system and the role of water companies. An additional issue of the next possible workshop will be the agricultural hot spots, which is a very difficult issue.

Sixth HELCOM PITF Regional Workshop
Poland, Cracow, 25-26 September 2001

Polish JCP Hot Spots –Timetable for deletion submitted by Poland

Hot Spot name	Environmental impact	Projects planned/in course of implementation	Necessary actions	Proposed date for deletion
"Plaszow" Wastewater Treatment Plant in Cracow Hot Spot no. 86	The plant is overloaded; the certain amount of sewage over 7 000 m^3/h is overflowed without treatment. Average concentration of pollutants [g/m^3] and treatment efficiency (%) as of 2000: BOD_5 - 120 (52 %) COD - 216 (52%) Total nitrogen - 34.6 (16%) Total phosphorus - 2.6 (57%).	Modernisation and extension of the WWTP (ISPA grant) - degree of pollutants reduction will comply with the national law, EU Directive and HELCOM Recommendations.	Modernisation and extension of the WWTP.	January 2007
"Kujawy" Wastewater Treatment Plant in Cracow Hot Spot no. 87.1	Mechanical-biological treatment with nitrification and de-nitrification processes and biological de-phosphate treatment. All parameters are in compliance with the water use permit, requirements of UE Directive and HELCOM Recommendations. Average concentration of pollutants [g/m^3] as of 2001: BOD_5 - 11.8 COD - 22.0 Total nitrogen - 4.4 Total phosphorus - 0.9. Sewage sludge after exposion to methane fermentation and dehydration on filter press is transported to disposal sites in Silesia.	II stage of the treatment plant: - extension of the sewage system in the surrounding areas, disposal of the sewage from the west part of city system (reduction of the "Plaszow" WWTP load); - improvement in stabilisation process; - development of sedimentation system.	Extension of sewage system.	January 2003
"Tadeusz Sendzimir" Steel Plant in Cracow Hot Spot no. 87.2	Emission to the air [Mg/year] as of 2000: Dust – 3 259 SO_2 – 6 027 NO_2 – 42 054 CO – 42 054 CnHm – 349. The overall water circulation in the Plant is closed. Most generated waste is harmful to the environment (containing oils, heavy metals – Mn, Pb, Cr, Cd, Zn, Ni, Cu, Al, asbestos, phenols, tar substances). Some of the waste is re-used up to 100%. Other waste is disposed at the Plant's landfills.	- Modification of coke-quenching tower construction; - installation of combustion gas recirculation at the sinter belt no. 2; - modernisation of installation for dust removal; - modernisation of electrofilters at the power boiler no. 2; - construction of coal dust blowing devices (into the blast furnaces); - improvement in the sewage system; - organisation of new landfills;	- Implementation of the system for continuous measurement of the emission from the Power House Department; - implementation of the computer system for the modelling of emitted pollution dispersion in current meteorological conditions; - application of BAT with regard to the reduction of emission and system of wastewater quality monitoring.	*) Due to the radical restructurisation of the steel industry in Poland, privatisation process and not settled position of the Plant as a part of the Polish Steel Plant Holding, there is no possibility to plan new environmental investments and to determine the date for hot spot deletion.

		- installation of containers for waste similar to communal waste.		
"Organika-Azot" Chemical Plants Joint Stock Co. in Jaworzno Hot Spot no. 89	Concentration of pollution in wastewater [mg/l] as of 2001: COD (Cr) – 122.9 TOC – 23.1 Phosphorus – 0.85 Nitrogen – 4.12 Copper – 0.239 Zinc – 0.153 Mercury – 0.001. Discharges of hazardous substances to the surface waters: • due to the polluted Plant's area - norms are exceeded with regard to AOX - 7,.06 mg/l; insecticides, including: DDT - 8.48 µg/l HCH - 157.4 µg/l DMDT - 10.3 µg/l • due to unseal installation - high chlorphenwinphos concentration (697 µg/l).	Laboratory research is conducted to prepare the project for modernisation of the Plant's wastewater treatment technology, particularly with regard to reduction of pesticides residue concentrations. Pesticides pollutant concentrations, including DDT exceed the national standards for sewage discharged to the groundwater. It should be underlined that this is mainly the result of past production activities, which caused the pollution of the Plants' area, rather than current methods. The other reason is a partly unsealed waste site. Survey to analise the ground contamination was conducted (1998-2000).	Reclamation of polluted Plant's area, including elimination of environmental nuisance caused by old unsealed hazardous waste disposal sites - estimated cost of that programme is about 100 Million PLN (25 MEUR) (without external assistance not possible to realise by the Plant).	Not earlier than 2004
"Boruta" Dyestuff Plant in Zgierz Hot Spot no. 90	The "Boruta" has been included in the JCP List due to the discharges of pollution in wastewater. In 1998 a closing down process of the "Boruta" was started due to the recession and the fall in production. Four companies have emerged. Only one generates the industrial wastewater discharged to the Municipal Wastewater Treatment Plant in Zgierz. <u>Municipal Wastewater Treatment Plant in Zgierz</u> operates as a mechanical-biological. Pre-treatment of sewage is conducted separately for the municipal wastewater and the industrial wastewater. Average concentration of pollutants [g/m^3] and treatment efficiency (%) as of 2001: BOD_5 - 4.6 (98.0%) COD - 52.2 (92.1%) Total nitrogen - 11.7 (78.3%) Total phosphorus - 0.7 (88.0%). Generated sludge is dehydrated on the traps and treated by oxide lime. The Plant has a certificate which allows for the use of the sludge for the agricultural purposes.	-	Relevant HELCOM Recommendations are fulfilled.	2001

"Dwory" Chemical Firm Ltd in Oswiecim Hot Spot no. 91	Emission to the air [Mg/year]: Dust total 743 Gases total 2745 (without CO_2) including: Mercury 0.039 Styrene 13.3 NOx 1064 SO_2 1357 Vinyl chloride 0 Chlorine 0.177 Hydrogen chloride 1.32 Ammonia 15.967.	- Modernisation of the Municipal-Industrial Wastewater Treatment Plant; - project aiming at reduction of the emission (exchange of burners to the low-emission burners); - reduction in water use, new technologies for waste utilisation. - Regeneration of titanic electrodes what may result in periodical deterioration of the wastewater quality.	- Reduction in water use; - full introduction of closed water systems; - new technologies for preliminary wastewater treatment. HELCOM Recommendation 6/3, 20/6 are fulfilled - lack of information on AOX concentration in wastewater.	2003
"Bolesław" Metallurgic and Mining Plants in Bukowno Hot Spot no. 92	Emission to the air [Mg/year]: Metaloliferous dust - 1 including: Zn - 0.8 Pb - 0.002 Cd - 0.0002 SO_2 - 416.4. Generated wastes - 2563.7 thousands Mg/year, including wastes disposed 19.6 thousands Mg/year. Treated wastewater discharged to the surface waters - 164267 thousands m^3/year, including mining waters - 155141 thousands m^3/year. Pollution load discharged to the surface waters [Mg/year]: Zn - 194.4 Pb - 22.1 Cd - 0.96 SO_4 - 36461.1.	-	There are no relevant HELCOM Recommendation for ore mining and non-ferrous industry. Heavy metals concentration in discharged waters and wastewater is below the level required by the HELCOM Recommendation 20E/6 taken as a reference. BAT is applied.	2001

30 January 2002

Seventh HELCOM PITF Regional Workshop
Lübeck, Germany
29-30 January 2002

CONCLUSIONS

Introduction

1. In the light of recent developments HELCOM PITF is reconsidering its focus on activities. The Preparatory Group has been arranging Regional Workshops in most of the Baltic Sea countries during the last two years. A preliminary evaluation of the Workshops has been prepared and the conclusions and positive experiences have been reported to PITF.

   PITF has encouraged the Preparatory Group (PG) to continue arranging Workshops in collaboration with governments and representatives from the local, regional and national level and the International Financial Institutions (IFIs). The aim is to finalise the round of Regional Workshops before 1 September 2002.

2. At the invitation of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety of Germany the Seventh PITF Regional Workshop was held in Lübeck on 29-30 January 2002.

3. In accordance with the discussions at the HELCOM PITF 18/2001 meeting the Workshop was a joint workshop, where both German and Danish Hot Spots were considered. The Agenda of the Workshop as well as the List of Participants are attached as Annexes 1 and 2, respectively.

4. The Workshop was opened by Ms. Beate Hoffmann, Senator, on the behalf of the City of Lübeck. Ms. Hoffmann welcomed the participants and informed about the background for appointing Lübeck as one of the JCP Hot Spots.

5. The Meeting elected Mr. Göte Svenson, Chairman of HELCOM PITF, as Chairman of the Workshop.

6. The Meeting established a Drafting Group consisting of Mr. Andreas Röpke and Ms. Heike Imhoff for preparing a press release for the press conference after the Workshop Mr. Claus Hagebro from the Secretariat of the Helsinki Commission acted as the Rapporteur and prepared the draft Conclusions of the Workshop to be agreed upon at the end of the Meeting.

German Hot Spots

7. Germany has nine Hot Spots listed under the Baltic Sea Joint Comprehensive Environmental Action Programme (JCP). Of these four Hot Spots (No. 114, 116, 118 and 121) have already been deleted after the implementation of pollution control measures. The remaining Hot spots from the List (No. 115, 117, 119 and 120) were discussed at the Workshop. Also, experiences from the already deleted Hot Spots were provided during the Workshop.

8. No information was presented regarding Hot Spot No. 113 (Odra Lagoon).

9. Information on each of the Hot Spots was provided during the presentations. The history and the recent development and implementation of environmental measures was described. Also, the water charges at the individual plants were presented. The investments have been substantial at most of the presented Hot Spots.

10. The presentations on investments in municipal wastewater treatment plants were encouraging. The activities have lead to possible deletion from the List of Hot Spots within the next one or two years.

11. Mr. Enno Thyen, c/o Entsorgungsbetriebe Lübeck, presented Hot Spot No. 119 (Lübeck). There are three wastewater treatment plants in Lübeck. The two smaller ones, Priwall and Ochsenkopf, have been completed and are functioning well. The third plant (Central Plant) treats about 80% of the wastewater and will have nutrient removal installed during 2003. After the completion a proposal for deletion from the List of Hot Spots will be prepared to PITF.

12. Mr. Thomas Langmaack, Staatliches Umweltsamt Itzehoe, presented useful information about the supervision and control system in Germany. Discharges exceeding the licensed limit values are punished with high fees.

13. Mr. Andreas Röpke, Ministry of the Environment Mecklenburg-Vorpommern, gave a general presentation about wastewater treatment in Mecklenburg-Vorpommern. In total 1,370 wastewater projects have been conducted since 1990. Constructions at the three Hot Spots left in the area are near to be completed and would be described in detail later at the Workshop.

14. Mr. Pierre Bütz, Eurawasser (a subsidiary of Ondeo), presented the treatment plant in Rostock (Hot Spot no. 121). The Hot Spot has already been deleted.

15. Mr. Jürgen Ehmke, ehp-Umweltplanung GmbH, presented information about the treatment plants in Greifswald and Stralsund. These Hot Spots (No. 114 and 116) have already been deleted.

16. Ms. Urte Reinsdorf, Neubrandenburger Stadtwerke GmbH, presented the treatment plant in Neubrandenburg (Hot Spot No. 115). The plant has been operating since 1999 and is based on Australian technology (CAST system). The treatment results are good apart from a somewhat high Tot-N value of 10,99 mg/l (spot control). The reduction percentage is high for all parameters. A proposal for deletion from the List of Hot Spots is in preparation.

17. Ms. Petra Tertel, Wasserbehandlung Mekcklenburgische Schweiz GmbH, presented the treatment plant in Stavenhagen-Malchin (Hot Spot No. 117). The plant receives wastewater from a population of 31,000 persons but has a design capacity of 260,000 p.e. due to the connection of several large industries. The plant has had P-removal since 1992 and has been completed with N-removal in 2001. It is now in the testing phase. The reduction percentages are good, but the discharges of nitrogen are still higher than prescribed in the HELCOM Recommendation. This problem is expected to be solved by April 2002, when the plant is fully operating.

18. Mr. Uwe Volkgenannt, UBA, presented the status of the agricultural Hot Spot No. 118 (Arkona Basin). It was a Hot Spot due to the high number of livestock in the Rügen area. The numbers have been reduced substantially and the Hot spot was deleted two years ago.

19. Mr. Hans Boeck, Hansestadt Wismar Entsorgungs- und Verkehrsbetrieb, presented the treatment plant in Wismar. The installation of full nutrient removal will be finished during 2002. After testing an application for deletion can be expected.

Danish Hot Spots

20. Denmark has four Hot Spots under the JCP. One of these Hot Spots (No. 123 - the municipal sewage treatment plant in Copenhagen) has been deleted. The remaining Hot Spots (No. 122, 124 and 129) are agricultural Hot Spots.

21. Ms. Sophie Winther, Forest and Nature Agency of the Danish Ministry of Environment, presented the Danish Nitrate Policy and had provided a document on this issue before the Workshop. Another document presented the Danish nutrient loads and reductions achieved.

22. Danish agriculture is very intensive and is dominated by livestock production. One of the main problems is loss of nitrogen through nitrate leaching into the aquatic environment. Four Action Plans - the first adopted in 1985 and the latest in 1998 - aim to implement the EU Nitrate Directive. When the action plans from 1991 and 1998 are fully implemented (by 2003) a 50% reduction of the loss of nitrate from agriculture is expected.

23. The Danish Code of Good Agricultural Practise consists of the measures also contained in the action programme and it is implemented in present legislation. Farmers are informed and codes promoted through detailed guideline material sent annually to the farmers and through the local advisory service centres.

24. Good Agricultural Practise reflects the minimum requirements at the environmental level. It means observing the common Danish rules on environment, hygiene and animal welfare laid down in other legislation. The legislation encompasses several Statutory Orders and Acts.

25. Ms. Winther gave a detailed presentation of the regulations, from which can be mentioned the use of nitrogen quotas on farm level, nitrogen norms for crops and fertilizer accounts. Excess application of nitrogen on farm level is notified or fined according to fixed schemes.

26. Statistics for the period 1997/98, based on 43,847 fertilizer accounts, reveal that the average norm including both livestock holdings and holdings with no livestock is 149 kg N/ha. Assuming that livestock manure is utilised according to the minimum demands, the average application of nitrogen per hectare is 130 kg.

27. The paper on nutrient loads and reductions (cf. para 21) was not presented. One overall conclusion is that during the period between the late 1980s and 1995 a 32% reduction of nitrogen discharge and a 13% reduction of phosphorus discharge from agriculture to the environment has been achieved.

Final evaluation

The Workshop Participants took note of the information given and the assessment of the present state of the Hot Spots. It was the impression that the Workshop provided more balanced and reflective information than the JCP Annual Reports normally provide.

The Workshop reflected progress in the development of the Hot Spots in Germany. Major results have been achieved and the development is encouraging.

One important outcome of the Workshop was that several German Hot Spots may soon be ready for deletion from the List of Hot Spots. HELCOM looks forward to the German decisions and presentation to the next meeting of the PITF.

At the moment it is difficult to assess if the agreed and comprehensive measures to reduce the nitrogen pollution from agriculture in Denmark are sufficient.

During the final discussion the following observations were made:

- The EU Water Framework Directive is expected to play a major role for the future environmental investments.

- The Workshop expressed the wish that the organizers of the Workshop in cooperation with the HELCOM Secretariat and the PG, should compile a Thematic Report with an assessment of the Hot Spots as well as a presentation of the findings at the Workshop.

28 May 2002

Eighth HELCOM PITF Regional Workshop
Stockholm, Sweden
27-28 May 2002

CONCLUSIONS

Introduction

1. HELCOM PITF is reconsidering its focus on activities. The Preparatory Group has been arranging Regional Workshops in most of the Baltic Sea countries during the last two years. A preliminary evaluation of the Workshops has been prepared and the conclusions and positive experiences have been reported to PITF.

   PITF has encouraged the Preparatory Group (PG) to continue arranging Workshops in collaboration with governments and representatives from the local, regional and national level and the International Financial Institutions (IFIs). The aim is to finalise the round of Regional Workshops before 1 September 2002.

2. At the invitation of the Swedish Environmental Protection Agency the Eighth PITF Regional Workshop was held in Stockholm on 27-28 May 2002.

3. In accordance with the discussions at the HELCOM PITF 18/2001 meeting the Workshop was a joint workshop, where both Finnish and Swedish Hot Spots were considered. The Agenda of the Workshop as well as the List of Participants are attached as Annexes 1 and 2, respectively.

4. The Workshop was opened by Mr. Lars Ekecrantz, Ministry of Environment, Sweden. Mr. Ekecrantz welcomed the participants and highlighted briefly the main pollution problems of the Baltic Sea and the importance of the Baltic Sea Joint Comprehensive Environmental Action Programme (JCP) and the activities related to the JCP Hot Spots.

5. The Meeting elected Mr. Göte Svenson, Chairman of HELCOM PITF, as Chairman of the Workshop. Ms. Ulla-Britta Fallenius was elected as Vice-chairman.

6. Mr. Claus Hagebro from the Secretariat of the Helsinki Commission acted as the Rapporteur and prepared the draft Conclusions of the Workshop to be agreed upon at the end of the Meeting. Furthermore, Ms. Ulla-Britta Fallenius and Mr. Hagebro prepared a press release for the press conference after the Workshop.

7. In total 22 Finnish and Swedish Hot Spots were discussed in the Workshop. The presentation of the Hot Spots was organised according to sectors. Information on each of the Hot Spots was provided during the presentations. The history and the recent development and implementation of environmental measures were described. The investments have been substantial at most of the presented Hot Spots. The Workshop also considered the development at several previously deleted Hot Spots, where measures to abate pollution have been accomplished.

8. Hot Spot presentations

METAL SMELTERS

Hot Spot No. 1: Rönnskär Smelter (Boliden)

Mr. Michael Borell (Boliden Mineral AB) gave a comprehensive presentation of the administrative regulations, technical investments and monitoring data regarding the Rönnskär smelter. More than 95% reduction of metal emissions and 90% reduction of sulphur dioxide have been obtained since 1970. The environmental monitoring programme indicated that the metal emissions today have no major impact on the environment. The impact observed seems to be determined by the historic discharges.

There are no HELCOM Recommendations for metal smelters and the plant complies with the national permit. Sweden aims to prepare a proposal for deletion for the next PITF meeting.

Hot Spot No. 7: Harjavalta (Outokumpu Group)

Ms. Eeva Ruokonen (Outokumpu Harjavalta Oy) presented the information. Today the smelter only produces cupper and sulphur products because the nickle production was sold off some years ago to OMG Harjavalta Nickle Oy. The two plants have common water emissions. There have been some problems with cupper and nickle emissions to water during the last quarter of 2001. Now the emission has gone down after the recent investments in enhanced water treatment.

Finland will consider a proposal for deletion to PITF.

FISH FARMING

Hot Spot No. 9: Fish farming - Archipelago and Åland Sea

Mr. Osmo Purhonen (South-West Finland Environment Authority) described the fish farming problems in the Finnish Archipelago. Permits are given for 5-year periods. The fish farms comply with the HELCOM Recommendation. The Finnish Water Protection Programme establishes stricter limit values and it seems that it is easy to reach the 7g total-P goal but more difficult to comply with the 44g total-N limit value. Further reductions will be enforced under the newly established Finnish Baltic Sea Programme. The fish farms contribute relatively little to the overall nutrient load in the Archipelago and mostly phosphorus.

Mr. Michael Wennström (Ålands Landskapsstyrelse) presented the fish farms in Åland. Locally the load can be rather high – overall the load is about 50% for total-N and about 66% for total-P of the load. Compared to the atmospheric input of nitrogen-compounds the contribution from fish farms is small. The farms comply with the HELCOM Recommendation.

Finland will consider a proposal for deletion of the Hot Spot to PITF.

AGRICULTURAL HOT SPOTS

Hot Spot Nos 125, 128 and 132: The Sound, Kattegat/Laholm Bight and Bornholm Basin

Ms. Ingrid Svedinger (Ministry of Agriculture, Sweden) gave a comprehensive presentation of the Swedish programmes aiming to reduce plant nutrient losses from agriculture. The Hot Spot area is within the Vulnerable Zones under the Nitrate Directive. Swedish farms,

depending on the size, need a permit or to register by the relevant authority in order to operate. The measures presented in detail were: legislation, environmental taxes, voluntary instruments, extensions service and information, research and development, and monitoring.

The overall use of nitrogen fertilizers has decreased about 20% since 1985 and phosphorus fertilizers by 70% since the 1970'ies. Computer programme calculations show no clear overall reduction of nitrogen leaching or nitrogen load. In some areas of Götaland the load has increased slightly due to increased livestock density. The ammonia emissions have been reduced by 12% in 1999 compared to 1995, and the amount is lower that the national maximum amount agreed for 2010.

There will be no proposal for Hot Spot deletion in the nearest future.

Hot Spot No. 10: Archipelago Sea

Mr. Osmo Purhonen presented the Finnish agricultural Hot Spot – the Archipelago Sea. There is no specific programme for the area in spite of the fact that the Finnish coastal waters south from the Quark and the whole Gulf of Finland are considered as nitrogen sensitive areas. The Water Protection Target Programme 1998-2005 aims at a 50% reduction in nutrient discharge from agriculture but it is not expected that the target will be reached. Anyhow, some positive results have been reached regarding pollution from livestock.

The Finnish Agri-Environmental Programme will continue under the new Baltic Sea Programme and strong water protection measures will be implemented in future in the catchment of the Archipelago Sea. Lowered nutrient levels in soil, decreased erosion and more buffer zones are expected to result in reduced nutrient discharges in the long term.

There will be no proposal for Hot Spot deletion in the nearest future.

MUNICIPAL WASTEWATER TREATMENT PLANTS

Hot Spot No. 127: Göteborg

Mr. Anders Höjlund (Swedish Environmental Protection Agency) presented the Hot Spot. The plant is the largest in Sweden and there are still some problems with the nitrogen discharge. For the moment two alternative methods are being tested in order to solve the problem. There will be no proposal for deletion for the moment.

Hot Spot No. 130: Stockholm Region

Ms. Gunilla Brattberg (Stockholm Water) gave a clear presentation of the three plants operated by Stockholm Water. The plants have one common outlet. Together the plants comply with the HELCOM requirements. There are good results regarding the reduction of blue-green algae due to the reduced P discharge.

Mr. Anders Höjlund presented the Käppala plant and Mr. Jan Bosander (SYVAB) the Himmerfjärd plant. Experiments in the Himmerfjärd plant with increased N discharge aim to reduce the blue-green algae. When problems with the fluidized bed are solved it is expected to further increase the nitrogen and phosphorus reduction.

This Hot Spot (Stockholm) is under scrutiny by the LAND meeting with the view of deletion at the next PITF meeting.

Hot Spot No. 17: Helsinki Region

Mr. Tapani Kohonen (Ministry of Environment, Finland) presented the activities at the Helsinki wastewater treatment plant where there is an enlargement project under implementation. The wastewater treatment plant will possibly be ready for deletion within the next few years after completion of the ongoing investments increasing the nitrogen removal efficiency.

MINE WASTE

Hot Spot No. 6: Dalälven – Falun/Garpenberg Areas

Ms. Ann-Marie Fällman (Swedish Environmental Protection Agency) gave a comprehensive presentation of the mine waste problem in Falun which forms a very special and complicated issue. It is the question of balancing the conflict between pollution reduction and the cultural value of the site. The mine has been active for many hundred years, and the waste heaps constitute an important part of the city environment.

The metal pollution from the mine area is of the same range as that from the total Pulp & Paper industry in Sweden. The ongoing remediation programme will end in 2006 after investment of 100 MSEK. Some reduction of the metal discharge has been obtained during the last ten years.

It is a very difficult Hot Spot and it will take a long time before deletion can be considered.

PULP AND PAPER INDUSTRIES (previously deleted Hot Spots)

Hot Spot Nos 3, 4, 5, 126 and 131: Husum, Östrand, Vallvik, Skoghall and Nymölla

Mr. Erik Nyström (Swedish Environmental Protection Agency) gave a good and comparative presentation of these previously deleted Hot Spots. The work on emission reductions has continued since the deletion in 1994 and the AOX emissions are low. Still, the Pulp & Paper industries account for 95% of all AOX emissions in Sweden. Nymölla was deleted in 1996 and the nutrient removal has been further increased.

Hot Spot Nos 2, 11, 12, 13 and 16: Metsä-Bothnia Oy Kemi, YPT Joutseno, Kaukas Lappeenranta, E-G Kaukopää and Sunila Oy - Kotka

Mr. Tapani Kohonen presented a useful overview of these Hot Spots. Several of the Hot Spots have changed name since the deletion. The performance is still satisfactory.

CHEMICAL INDUSTRY (previously deleted Hot Spot)

Hot Spot No. 8: Kemira Oy Vuorikemia

Mr. Tapani Kohonen presented data on this former Hot Spot (deleted in 1996). The plant is doing well and the metal emissions are well under the limit values in the HELCOM Recommendation.

9. Presentation by an IFI

Mr. Roland Randefelt from the Nordic Investment Bank (NIB) explained that NIB and EIB are the only IFIs within HELCOM PITF which can finance projects in Finland and Sweden. NIB has provided financing for about 14 out of total 17 industrial and municipal Hot Spots

in Sweden and Finland. The Hot Spots in which NIB has not participated are the four agricultural Hot Spots, the fish farming, the mine waste in Falun, the Harjavalta smelter and the Nymölla pulp & paper factory. The loan amount committed from NIB for these 14 Hot Spots has been in the order of half a billion euro in total.

The shortcomings in the financing from IFIs are that they are not able to handle small scattered projects like agricultural Hot Spots for fish farms, unless a commercial bank or the State or another financial intermediary is involved - in which case a credit line can be opened.

As regards the mine waste in Falun the problem is the lack of the project's cash flow and the unclear ownership. The only possibility for IFI loans is if the Swedish state would take over the responsibility for the Hot Spot and guarantee the loan.

10. Final evaluation

The Workshop Participants took note of the information given and the assessment of the present state of the Hot Spots. The Workshop reflected progress in the development of the Hot Spots in Finland and Sweden. Major results have been achieved and the development is encouraging.

One important outcome of the Workshop was that several Hot Spots might be ready for deletion from the List of Hot Spots. HELCOM looks forward to the Finnish and Swedish decisions and possible presentation to the next meeting of the PITF.

At the moment it is difficult to assess if the comprehensive measures to reduce the nitrogen pollution from the agricultural Hot Spots are sufficient. The agriculture environment problems within Finland and Sweden are difficult to handle - like in other countries surrounding the Baltic Sea. The sector contributes with the largest input of nitrogen to the Baltic Sea, which gives rise to eutrophication. As an example, the agriculture in Sweden is responsible for 40% of the anthropogenic load of nitrogen. Solving this problem will take a long time.

During the final discussion it was mentioned that the EU Water Framework Directive may help solving the problem with agriculture. The Directive is expected to play a major role for the future environmental investments. Also the EU Marine Strategy now being developed was mentioned as important for the future development in relation to the Baltic Sea and the Hot Spots.

The Workshop expressed the wish that the organizers of the Workshop in cooperation with the HELCOM Secretariat and the PG, should compile a Thematic Report with an assessment of the Hot Spots as well as a presentation of the findings at the Workshop.

The Chairman thanked the organisers from Naturvårdsverket for organising and hosting the Workshop.

19 June 2002

Ninth HELCOM PITF Regional Workshop
Lvov, Ukraine
18-19 June 2002

CONCLUSIONS

Introduction

1. The Preparatory Group has been arranging Regional Workshops in most of the Baltic Sea countries during the last two years. A preliminary evaluation of the Workshops has been prepared and the conclusions and positive experiences have been reported to PITF.

   PITF has encouraged the Preparatory Group (PG) to continue arranging Workshops in collaboration with governments and representatives from the local, regional and national level and the International Financial Institutions (IFIs). The aim is to finalise the round of Regional Workshops before 1 September 2002.

2. At the invitation of the Ministry of the Environment and Natural Resources of Ukraine the Ninth PITF Regional Workshop was held in Lvov, Ukraine, on 18-19 June 2002. Also representatives of Belarus and the Czech Republic were invited to the Workshop. The meeting was organised by the State Administration of Ecology and Natural Resources in Lviv Oblast.

3. In accordance with the discussions at the HELCOM PITF 18/2001 meeting the Workshop was a joint workshop, where the Ukrainian Hot Spot together with the Belarusian and the Czech Hot Spots were considered. The Agenda of the Workshop as well as the List of Participants are attached as Annexes 1 and 2, respectively.

4. The Workshop was opened by Mr. Bogdan Presner, Head of the State Administration of Ecology and Natural Resources in Lviv Oblast. Mr. Presner welcomed the participants and introduced the Ukrainian participants. Mr. Presner found that the Workshop offered a good opportunity to exchange information and for strengthening the cooperation with PITF and HELCOM.

5. Mr. Göte Svenson, Chairman of HELCOM PITF and Ms. Ulla-Britta Fallenius, Chairman of the Preparatory Group (PG) introduced the work of PITF and the series of regional workshops arranged by the Group. So far 34 Hot Spots have been deleted from the List of Hot Spots. The members of the PG were introduced. Mr. Karl-Johan Lehtinen from NEFCO represented the six International Financing Institutions (IFIs) participating in the work of PITF.

6. The Meeting elected Mr. Göte Svenson, Chairman of HELCOM PITF, as Chairman and Mr. Bogdan Presner/Mr. Ivan Zajats as Vice-chairmen of the Workshop.

7. Mr. Claus Hagebro from the Secretariat of the Helsinki Commission was elected as the Rapporteur to prepare the draft Conclusions of the Workshop to be agreed upon at the end of the Meeting.

8. In total four Hot Spots (one Ukrainian and three Belarusian) were discussed at the Workshop. In addition Mr. Hagebro gave a brief overview of the three Hot Spots in the Czech Republic (Nos 109-111).

9. The history, the problems, and the recent development and implementation of environmental measures were described for each Hot Spot. Planned projects and investments were presented.

10. Hot Spot presentations

UKRAINE

Hot Spot No. 94: Lvov (Municipal & Industrial)

Mr. Aleksij Shvets and Mr. Volodymyr Symashchuk (State Administration of Ecology and Natural Resources in Lviv Oblast) gave a comprehensive presentation of the Hot Spot. The City is placed just on the Baltic Sea/Black Sea divide. There is one wastewater treatment plant with a capacity of 490,000 m^3/day and 95% of the city population is connected to the plant. The treatment plant provides mechanical and biological treatment. There are two outlets and in addition to these the Poltva river is monitored 500 meters downstream. Some monitoring parameters and data were provided. The sewerage system is not complete and some wastewater is without treatment.

Mr. Lev Hipp (MKP Lvivvodokanal) presented a project for the renovation of the wastewater treatment plant. The project is estimated to 40 mio USD and will be supported by World Bank credits (20 mio USD) and Swedish grants (6 mio USD).The city of Lvov and Vodokanal will bring 10.5 mio USD, which means that 3.5 mio USD is still missing. The project has been approved by the Ukrainian Government and the agreements with the WB and Sweden will be concluded by September.

The project will last two years and implement Swedish standards. It encompasses primary and secondary settling tanks, and an aeration system and a drying system for sludge. Also some automated monitoring will be implemented.

The sewerage system in Lvov is in bad condition and needs renovation. Due to many leakages not all wastewater is treated and the groundwater may become polluted. Renovation of the sewerage system is estimated to 240 mio USD. The city's water supply is based on groundwater of high quality and is conducted to the city from sources 20-110 km outside the city.

There is some industry discharging to the sewerage system. It is mostly food industry, light industry and construction industry. Some industries are not active for the moment. There are some metal problems (mainly Fe and Cu).

It will take some years before the deletion of Lvov as a Hot spot can be considered.

BELARUS

Mr. Aliaksandr Pakhomau from Belarus (Central Research Institute for Complex Use of Water Resources) presented the status of the three Belarusian Hot Spots.

Hot Spot No. 47: Daugava River Basin

First of all the Workshop agreed to name the Hot Spot "Vitebsk" (Municipal & Industrial).The Hot Spot consist of one major discharge point plus a number of minor points. The main problem is the Vitebsk wastewater treatment plant. The treatment

plant has a capacity of approximately 90,000 m^3/day but receives about 100-120,000 m^3 daily. The city has a very high water consumption (about 300 l/person per day). The plant is overloaded and in particular the secondary settling tanks are too small. There is some industry (construction, metal, leather and food industries) connected to the plant.

A project is planned for reconstruction of the plant and including construction of secondary clarifiers. The costs are estimated to about 7-8 mio Euro. The project is being discussed with the World Bank.

Water pricing was discussed. The price is 0.02 USD/m^3 (about 1 USD/m3 in other parts of Europe). The population covers about 40% of the municipal costs in this way but it is planned to increase the price by 60% next year. Swedish and Danish experience was presented, and it was concluded that proper water pricing is important in providing money for investment and operation/maintenance and at the same time reducing the water consumption and thereby the necessary capacity of treatment plants. The social impact of water pricing must be taken into account and compensated in certain cases.

Hot Spot No. 61: Grodno (Municipal & Industrial)

The city of Grodno represents an industrial centre in the area. The capacity of the wastewater treatment plant is approximately 92,300 m^3/day but the load is about 107 - 118,000 m^3/day resulting in 20-30% overload. The city has a very high water consumption (about 350 l/person per day). A project for constructing a new treatment plant with a total capacity of 167,000 m^3/day for the price of 75 mio USD has been outlined. The aim is to solve the problems by 2010.

Hot Spot No. 93: Brest (Municipal & Industrial)

The city of Brest with 286,000 inhabitants discharges to Bug river and thereby to the Vistula. This treatment plant is not overloaded, but it is completely run down as there has been no maintenance of the plant over the years. The operating conditions were described in the documentation provided for the Workshop. There are some industries in the area and some of them have their own treatment plants. Information about all of these industries cannot be obtained.

Sludge is a major and urgent problem. The sludge management in the plant is very bad and there is a carry-over to the outlet. Sludge is not removed from the plant because there is no place to dispose it. About 300,000 m^3 is in storage but the dams may break during heavy rain causing a pollution disaster. Denmark and Poland have provided a grant (350.000 Euro) for technical assistance to solve the problem. The plan is to install a sludge filter press, but there is some delay.

CZECH REPUBLIC

Unfortunately there were no representatives from the Czech Republic present and no updated information available about the Hot Spots in the Czech Republic. The Ministry of the Environment of the Czech Republic had informed that the Odra River Commission might provide information about the Odra river basin, but contacts had not resulted in any response.

Mr. Claus Hagebro, HELCOM, gave a brief overview of the three Hot Spots in the Czech Republic based on the Pre-feasibility study from 1991. Regarding Hot Spot No. 111, which is shared with Poland, the Workshop decided that the Czech Republic should be informed about the latest developments. It is the position that the salt discharges from mines have no impact on the Baltic Sea, and consequently the Hot Spot has been deleted from the Polish side. The Czech Republic should be invited to propose deletion of this Hot Spot. A meeting about Hot Spots 109 and 110 should be proposed or at least updated information about these Hot Spots should be requested.

11. Presentation by an IFI

Mr. Karl-Johan Lehtinen from the Nordic Environment Finance Corporation (NEFCO) informed about the activities of NEFCO, which is ten years old. The main criteria for involvement are 1) a Nordic partner, 2) applied positive unit abatement cost principle (more environmental protection for the money invested in a project than if invested in the Nordic countries). The administrative paper work sounds complicated but can be made faster under certain circumstances. More information on the internet: www.nefco.fi

12. Final discussion

There was a lengthy and fruitful discussion. The Chairman encouraged Ukraine and Belarus to continue the promotion of environmental protection and if possible to accelerate the implementation of the plans.

On the question on how the HELCOM PITF can support the countries it was agreed to keep the State Administration of Ecology and Natural Resources in Lviv Oblast directly informed about PITF activities in addition to the official contact in Kiev.

A new major polluting problem near the Ukrainian/Polish border was described. A small residential area (15,000 inhabitants) discharges untreated wastewater to a small river going to Vistula and Poland (20 km away). In addition an open sulphur mine discharges 100,000 m^3 of polluted water per day (sulphur and salts). The mine is going to be closed but there is a problem with the mine water, which may also contain heavy metals. It was commented that sulphur is no problem for the Baltic Sea but heavy metals may pose a problem. It was concluded that the State Administration in Lvov may collect further information and consider together with the Ministry in Kiev if a request should be directed to HELCOM PITF regarding establishment of a new Hot Spot.

The Belarusian representative informed that Belarus might sign the Helsinki Convention during the next year. This information was welcomed by the Chairman.

The problem with obsolete pesticides and storage of these was discussed. This issue may give rise to new serious polluting problems in many countries. A representative of the State Administration of Ecology and Natural Resources in Lviv Oblast informed about the problems with old pesticides. In Lvov Oblast there are 620 t old pesticides of which 120 t are stored in 195 containers. This is a temporary solution and not environmentally safe in the long term. More information about the problem with old pesticides will be send to the HELCOM Secretariat. The HELCOM Project Group on Hazardous Substances deals with the problem, and a Danish project report on how to destroy old pesticides in an environmentally safe way is expected this year. The HELCOM Secretariat will send available information to the State Administration.

The PG Chairman concluded that this Workshop once more underlined the importance of considering water supply, sewerage system, and wastewater treatment as an integrated system and that water pricing is important for municipal water management.

The Workshop expressed the wish that the Ukraine and Belarus, in cooperation with the HELCOM Secretariat and the PG, should compile a Thematic Report with an assessment of the Hot Spots as well as a presentation of the findings at the Workshop.

The Chairman thanked the State Administration of Ecology and Natural Resources in Lviv Oblast for organising and hosting this successful Workshop. It is the first time that there as been a HELCOM meeting in the Ukraine and it may indicate a future strengthened mutual cooperation.

9 October 2002

Tenth HELCOM PITF Regional Workshop
Wroclaw, Poland
8-9 October 2002

SUMMARY AND CONCLUSIONS

Introduction

1. The PITF Preparatory Group has been arranging Regional Workshops to cover Hot Spots in all the Baltic Sea countries during the past 2.5 years. A preliminary evaluation of the Workshops has been prepared and the conclusions and positive experiences were reported to PITF 18/2001.

   PITF encouraged the Preparatory Group (PG) to continue arranging Regional Workshops in collaboration with governments and representatives from the local, regional and national level and the International Financial Institutions (IFIs). The aim was to finalize the "round" of Regional Workshops, covering all the JCP Hot Spots, in autumn 2002 and to prepare a final report to the 19th meeting of PITF, which will be held in November 2002.

2. At the invitation of the Ministry of the Environment of Poland the Tenth PITF Regional Workshop was held in Wroclaw, Poland, on 8-9 October 2002. The Workshop was hosted by the Regional Board for Water Management in Wroclaw.

   In accordance with the discussions at the HELCOM PITF 18/2001 meeting the Workshop was a sequence to the Sixth HELCOM PITF Workshop, which covered the Hot Spots in the southern Poland and was held in Cracow, Poland, in September 2001. The Agenda of the Workshop as well as the List of Participants are attached as Annexes 1 and 2, respectively.

3. The Workshop was opened by Ms. Adriana Dembowska on behalf of the Director of the Department of Water Resources of the Ministry of the Environment.

4. Mr. Ryszard Kosierb, Director of the Regional Board for Water Management in Wroclaw, addressed the Workshop and welcomed the participants. Mr. Kosierb described the tasks of the Regional Board for Water Management which also includes flood protection.

5. The Meeting elected Mr. Göte Svenson, Chairman of HELCOM PITF, as Chairman of the Meeting and Ms Adriana Dembowska from the Ministry of the Environment as Vice-Chairman of the Workshop.

6. Mr. Claus Hagebro from the Secretariat of the Helsinki Commission together with Ms. Monika Stankiewicz from the Polish Secretariat for the Helsinki Convention in Gdansk were elected as Secretaries to prepare the draft Conclusions of the Workshop to be agreed upon at the end of the Meeting.

7. The Agenda was adopted with slight changes to the order of presentations.

8. A brief overview of the Polish Hot Spots was presented by Ms. Monika Stankiewicz. So far 15 Polish Hot Spots have been deleted from the JCP List of Hot Spots. The List now contains 26 Polish Hot Spots (several divided into sub-hot spots).

Thematic presentations

9. The administrative system for water management in Poland was presented in depth by Ms. Barbara Monka, the Regional Board for Water Management in Wroclaw. The presentation described the authorities, the legislation and the instruments for water management. On a question about the relationship with the Odra Commission the Meeting was informed that there is no direct cooperation but that there is some exchange of information.

10. The Polish system of fees and fines for the use of the environment was presented by Ms. Adriana Dembowska. Poland has several Environmental Protection Funds at different administrative levels. The source of funding comes from fines and fees (F&F) which are distributed as described in the table.

Communal Funds (Gmina)	50% F&F for landfills, 20% of other F&F (except those for NOX and mining waters)
County Funds (Poviat)	10% of F&F (except as above)
the rest is shared by:	
Provincial Funds	78% (except as above)
National Fund for Environmental Protection and Water Management	28% and 100% of F&F for NOX emission and mining waters discharge

The system combining fees, fines, and funding possibilities has been very efficient in facilitating investments in environmental protection. It was mentioned that payment of fines could be postponed or redeemed if the penalised company implements investment projects protecting the environment and in this way removes the reason for which the penalty was imposed.

11. A total of 16 Hot Spots were discussed at the Workshop. The history, problems, and the recent development and implementation of environmental measures were described for each Hot Spot. Planned projects and investments were presented as well as the prospect of future deletion from the Hot Spot list.

12. Hot Spot presentations

MUNICIPAL HOT SPOTS

Hot Spot No. 74: "Jamno" Wastewater Treatment Plant in Koszalin

Information about the Jamno plant was presented. Modernisation of the plant started in 2000 and is expected to be finished by December 2002. The investments will be about 2.250 million Euros (9 million PLN). After completion the plant will comply with all requirements by

HELCOM Recommendations and the EU Wastewater Directive. The proposal for deletion will be forwarded as soon as reliable data from the completed plant is available, possibly during spring/summer 2003.

Hot Spot Nos 82, 83.1, and 84 "Czajka", "Poludnie" and "Pancerz" WWTPs in Warsaw

The strategy for wastewater treatment has been revised and the "Pancerz" plant (Hot Spot No. 84) will be abandoned. Instead the Czajka and Poludnie will be modernised and constructed, respectively.

For Czajka the requirements are fulfilled for most parameters, but the nitrogen discharge is still too high. Investments are estimated to 285,000 Euro. Hot Spots 82 and 84 are expected to be deleted in 2009 when Czajka is fully operational.

The Poludnie plant is under construction in a two-stage process. The originally planned treatment efficiency for nitrogen and phosphorus are being reconsidered in order to meet HELCOM and EU requirements. Investment costs will be about 158 million Euros. Hot Spot 83.1 is expected ready for deletion in 2004.

Hot Spot No. 85: "Hajdow" WWTP in Lublin

Modernisation of the Hajdow sewage treatment plant is in progress. The investment is estimated to approximately 23 million Euros including a SCADA control system financed by the Danish EPA. Some work has been completed and 50% of the wastewater is treated with the new technology. For the moment the nitrogen and phosphorus discharge is too high. The sludge is polluted with heavy metals (in particular Cd and Ni). In future the sludge will be deposited in a special depot or incinerated. The modernisation will be concluded in 2006 and the Hot Spot will be ready for deletion.

Hot Spot Nos. 97.1 and 97.2: "Pomorzany" and "Drzetowo" WWTPs in Szczecin

There was no paper presenting the wastewater treatment situation in Szczecin but the situation and the planned future investments were carefully described. The Pomorzany plant will be constructed in 2003–2008. The wastewater from the Drzetowo will be connected to the plant. In addition the existing mechanical/chemical smaller Zdroje plant will be modernized and extended with biological treatment. The Zdroje plant will be finished in 2007. The two plants will comply with the HELCOM and EU requirements after the completion of the projects. The name of Hot Spot 97.2 should be changed to "Zdroje".

Hot Spot No. 100: Group Sewage Treatment Plant in Lodz

The Group Sewage Treatment Plant for the Lodz Urban Conurbation is under construction and will be finished in 2005. The investment amounts to about 500 million PLN. For the moment the discharge of nitrogen is too high and several other parameters are not complying with the HELCOM and EU standards. The plant may be ready for deletion in 2006. More information can be found on www.gos.lodz.pl

Hot Spot No. 101: "Lacza" WWTP in Zielona Gora

The Lacza treatment plant has been completed. The plant complies with national standards as well as with the HELCOM and EU standards. The plant applies for deletion as a JCP Hot Spot.

INDUSTRIAL HOT SPOTS

Hot Spot No.76.2: Gdansk Refinery

The Gdansk Refinery has an Environmental Management System consistent with ISO 14001 and a policy aiming at limitation of polluting emissions. The produced petrol has no lead and the diesel oil has low sulphur content. Produced waste is provided to external parties for industrial use or disposal. The refinery has a three-stage wastewater treatment plant and 44% of wastewater is reused. The cooling systems are closed. The refinery complies with HELCOM Recommendations 23/8 and 23/11. The industry is proposed for deletion.

Hot Spot No. 81.1: "Anwil" Nitric Plant in Wloclawek

Anwil industry produces chemical products for the processing industry and agriculture. Wastewater is treated in a Central Industrial Wastewater Treatment Plant before discharge. Some wastewater is directed to the Group Wastewater Treatment Plant in Wloclawek after pre-treatment. The technologies used and the activities implemented in order to limit discharges were described including the results obtained. About 40 million PLN was invested in 2000-2001. The industry will apply for deletion in 2003.

Hot Spot No.83.2: "Siekierki" Heat and Power Plant in Warsaw

The Siekierki heat and power plant used to have problems with dust emissions to the air, wastewater discharge including thermal effects, and the ash deposit. Investments have been made resulting in a 10 times reduction of dust emissions and substantial reduction of NOX and SO_2 emissions. The Polish norms are easily fulfilled but these may soon be strengthened due to new EU regulations. No relevant HELCOM Recommendations exist.

Siekierki produces no organic wastewater but SS and oil used to cause problems. A new system for coagulation of ash "colloids" results in a water quality better than the Vistula and the treated water is used for cooling.

The ash management has been improved and today all ash is reused for different purposes. The industry has been deleted from the "List-of-80" and has plans for future improvements. Siekierki wishes to apply for deletion in 2002.

Hot Spot No.98.1: "Police" Chemical Plants

A detailed description of the products and the environmental protection activities of Police were presented. Management processes for waste, water/wastewater and air emissions were described and where possible comparison with HELCOM Recommendations 17/6 and 23/11 was made. Environmental investment projects from 1998-2001 to the price of about 58 million PLN were described as well as planned future investments. The industry wishes to apply for deletion in 2002.

Hot Spot No. 104: "Rokita" Chemical Plants in Brzeg Dolny

The plant was described and data for emissions of gas and dust to the atmosphere, wastewater, and process waste were presented. Three HELCOM Recommendations are relevant. They seem to be fulfilled apart from a requirement regarding COD. There is no data on toxicity analyses. Compliance with all HELCOM Recommendations is foreseen by the industry when the modernisation has been completed in two years time.

COASTAL LAGOONS AND WETLANDS

Hot Spot Nos 73 and 113: Vistula Lagoon and Szczecinski Lagoon

An informative paper about the two coastal lagoons (Vistula and Szczecinski Lagoons) was presented. The background for the ICZM activities was given and the present situation analysed.

It was mentioned that these "joint-Hot Spots" are difficult to manage and that the criteria for deletion are not clear. It was proposed that Poland and Germany present papers (preferably a joint paper) about the problems of the Szczecinski Lagoon and the handling of joint Hot Spots in general to the next PITF meeting.

Final discussion

13. A timetable for deletion of the Polish Hot Spots was considered (Annex 3). The table will be updated for all the Polish Hot Spots. It seems that several Polish Hot Spots are now ready for deletion and that more will come during the next few years.

14. Poland was invited to present proposals for deletion of the relevant Hot Spots to PITF. The proposals must be clear and present monitoring data and other information in relation to the established criteria for deletion of Hot Spots.

15. The Workshop expressed the wish that Poland, in cooperation with the HELCOM Secretariat and the Preparatory Group, should compile a Thematic Report with an assessment of the Hot Spots as well as a presentation of the findings at the Workshops.

Tenth HELCOM PITF Regional Workshop
Wroclaw, Poland, 8-9 October 2002

Polish JCP Hot Spots –Timetable for deletion; submitted by Poland

Hot Spot name	Environmental impact	Projects planned/in course of implementation	Necessary actions	Proposed date for commence of hot-spot deletion procedure
Vistula Lagoon Hot Spot No. 73	Transboundary area. The biggest cities within the catchment area are: Kaliningrad (Russia), Olsztyn and Elblag (Poland). The lagoon catchment area (23,871 km^2) is about 30 times larger than the lagoon itself. In the Polish part of Vistula Lagoon coastal area 2 landscape parks are established. Municipal wastewater management in the Polish part do not raise objections. Main source of pollution is load discharged by the rivers. Main problem affecting the Vistula Lagoon environment on the Polish side are: • eutrophication; • excessive concentration of tourism; • flood threat. The idea of integrated management is complicated due to the structure of public administration (2 provinces) and division between 2 countries. Lack of explicit criteria makes impossible the determination of deletion timeframes/date from the JCP Hot Spot List.			
WWTP "Jamno" in Koszalin Hot Spot No. 74	Mechanical-biological WWTP with chemically supported phosphorus reduction. Whole city population served (120,000 inhabitants). Sewerage system covers 90 % of city area. Average 24-h pollution concentration in treated wastewater [mg/l]and reduction (%) as of 25/26 June 2002: BOD_5 –2.75 (99 %) COD – 16.1 (98 %) N-tot – 9.75 (91 %) P-tot – 0.28 (98 %). Sludge amount – 10,000 t/year (25 % d.w.); disposed of at municipal landfill. The quality of sludge is good enough to make possible use for agricultural purposes.	Modernisation (development of biological stage to enhance nitrogen reduction) finished. Start-up is planned to be terminated in December 2002.	Relevant HELCOM Recs. fulfilled.	Maybe preliminary information to PITF in November 2002; application to LAND in May 2003.
Gdansk Refinery Hot Spot No. 76.2	Annual emission of gaseous pollution to the air in 2001: SO_2 – 5,506 t NO_x- 1,751 t CO - 751 t Other (methylene chloride, 1,2-dichloroethane, benzo-a-pirene, aliphatic and aromatic hydrocarbons, xylene, butanol, hydrogen sulfide) – 45 t dust - 90 t. Annual amount of wastes (including hazardous) in 2001: generated – 13,891.2 t.		ISO 14001 System of Environmental Management implemented. Relevant HELCOM Recs. implemented. BAT introduced.	October 2002

Hot Spot No. 76.2 – continued	managed– 13,398.2 t. landfilled – 286.7 t (including 156.6 municipal waste). Refinery is equipped with 3-stage mechanical-biological-chemical WWTP, which is supplied with 5 separate sewerage systems (technological, oil-contaminated, sanitation, drainage and rain-water). Depending on the contamination streams of wastewater are treated appropriately. The effluent from the WWTP fulfils all the requirements set in water permits and HELCOM Recommendation. Cooling water system is closed. In 2001 44 % of treated wastewater was re-used by the Refinery.			
Anwil S.A. in Wloclawek Hot Spot No. 81.1	Chemical plant (organic and inorganic production). Annual pollution load in 2001 [t]: COD – 254 $N\text{-}NO_3$ – 126.7 $N\text{-}NH_4$ – 172.8 Chlorides – 2,257.3 Sulphides – 1,624.9 Suspended matter – 134.6 Cd – 0.045 Cu – 0.0249 Ni – 0.132 Pb – 0.254 Cr – 0.084 Zn – 0.264. Wastewater is pre-treated before discharging to municipal WWTP. Annual air emission in 2001 [t]: Dust – 747.7 Gas – 8,167.3. Solid waste amount in 2001 [t]: produced – 66,805 (including 60,852 hazardous) utilised within the plant – 57,426 (hazardous) delivered to external companies – 4,176 (incl. 3,390 hazardous) landfilled – 5,164 (incl. 27 hazardous).	Modernisation of wastewater management	Modernisation of wastewater management	2003
WWTP "Czajka" in Warsaw Hot Spot No. 82	Mechanical-biological WWTP serving east-bank part of Warsaw (500,000 inhabitants). Industrial wastewater makes 12 % of inflow. Designed capacity 400,000 m^3/d, actual inflow below 220,000 m^3/d. Annual average pollution concentration [mg/l] and reduction in 2001: BOD_5 – 12 (93.9 %) COD 61 (91.1 %) N-tot – 19.5 (60.7 %) P-tot – 1.34 (88.9 %).	Development and modernisation of WWTP to capacity 500,000 m^3/d. Supply of wastewater from north part of west-bank Warsaw equipped with combined sewerage system (previously indicated as Hot Spot No. 84)	Development and modernisation of the plant to enable treatment of wastewater from north-part of west-bank Warsaw and enhancing of nitrogen reduction.	2009

WWTP "Poludnie" in Warsaw Hot Spot No. 83.1	Wastewater from the southern part of west-bank Warsaw (25 % of the total city area and population) are not treated at present. Construction of WWTP has already been started. Designed capacity is 112,000 m^3/d, further extension to 224,000 m^3/d possible.	Construction of WWTP in progress. Designed treatment parameters and efficiency in line with HELCOM Recs. requirements, except for total nitrogen (15 mg N/l at the outlet)	Completion of WWTP construction. Designed technology has to be modified with regard to nitrogen removal (to achieve 10 mg N/l at the outlet).	Second part of 2004
Heat and Power Plant "Siekierki" in Warsaw Hot Spot No. 83.2	Annual air emission in 2001 [t]: SO_2 – 21,277 NO_2 – 6,110 CO – 756 dust – 2,681. Steam and water boilers equipped with modern dust collectors (over 99 % de-dusting efficiency). Introduced modern technologies emission reduction of NO_x (low-emission burners, low-temperature vortex installations on burners) and SO_2 (low-sulphur coal assortments used). Total volume of solid waste produced (fly-ash and slag) used in construction and cement industries.	Modernisation of steam boiler – installation of sack filter (99.9 % de-dusting efficiency) and low-emission burners (enabling 45 % NO_x emission reduction). More stringent EU requirements for air emission are to be observed from 2006. To follow these requirements low-sulphur coal (S content below 0.55 %) is to be used on four unit burners.	Lack of relevant HELCOM Recs. Due to reduction of the impact on the environment the Plant was deleted from the national "Dirty 80s List"	October 2002
WWTP "Pancerz" in Warsaw Hot Spot No. 84	The plant was supposed to serve the northern part of west-bank Warsaw. The City Council decided to give it up and direct the wastewater to WWTP "Czajka" (Hot Spot No. 82).			2009
WWTP "Hajdow" in Lublin Hot Spot No. 85	Mechanical-biological plant serving approx. 400,000 inhabitants (450,000 PE). Designed capacity 165,000 m^3/d, actual inflow 80,000 m^3/d. When modernisation is completed the total capacity will reach 120,000 m^3/d. Average pollution concentration [mg/l] and reduction [%] in 2001: BOD_5 – 8 (97.7 %) COD – 48 (93.6 %) N-tot – 26.2 (64.1 %) P-tot – 7.4 (21.1 %). Solid waste and sludge disposed of on municipal landfill. Due to high heavy metal contamination use for agricultural purposes not possible.	Modernisation aimed at enhancement of nitrogen and phosphorus reduction as well as sludge dewatering.	Modernisation aimed at enhancement of nitrogen and phosphorus reduction.	2006
Agriculture in Vistula river basin Hot Spot No. 95	The idea of identification of specific areas being the main sources of agricultural run-off is still under elaboration.			

WWTP "Pomorzany" in Szczecin Hot Spot No. 97.1	Not functional wastewater management system in the city: • not sufficient treatment of the wastewater discharged from the existing mechanical WWTPs; • large part of the city area not equipped with sewerage; • untreated wastewater discharged to Odra River (storm water system used); • bad condition of large part of sewerage Actually 84 % of wastewater generated is discharged to Odra river without any treatment.	Construction of mechanical-biological WWTP "Pomorzany". Construction of sewerage where needed and modernisation of the existing one. Introduction of integrated waste management system.	Construction of mechanical-biological WWTP. Construction of sewerage where needed and modernisation of the existing one. Introduction of integrated waste management system.	2008
WWTP "Zdroje" in Szczecin Hot Spot No. 97.2	The plant "Drzetowo" was supposed as a second one serving the city of Szczecin. The City Council has decided to give it up and construct only one plant treating the total wastewater volume from the city (WWTP "Pomorzany" Hot Spot No. 97.1). Additionally, the small mechanical WWTP "Zdroje" with a planned capacity of 18.000 m^3/d will be modernised and extended with a biological part by the year 2007. The name of the Hot Spot changed to "Zdroje".			2008
Chemical Plant "Police" Hot Spot No. 98.1	Fertilisers production (fertilisers, titanium white and other chemical products). The Plant is served by the own WWTP supplied by the municipal wastewater from the city of Police as well. Annual average pollution concentration [mg/l] and reduction [%] or annual load [kg] in 2001: COD – 26.9 (66.8 %) P-tot – 0.37 (99.4 %) N-tot – 2.48 (48 %) Hg – 0.007 (256 kg) Cd – 0.006 (228 kg) Cu – 0.013 (503 kg) Ni – 0.032 (1220 kg) Pb – 0.029 (1,117 kg) Cr – 0.072 (2,758 kg) Cr-VI – 0.048 (1,849 kg) Zn – 0.122 (4,664 kg). Wastewater-free fertilisers production. Annual air emission in 2001 – concentration [mg/m^3] and load [t]: NO_x – 7.03 (41.77 t) Dust – 16.86 (148.29 t) Fluorides – 1.98 (12.24 t). Phosphogipsum is disposed of on the Plant's landfill managed in appropriate way.	Reduction of wastewater discharges – installation of vacuum pumps on the concentration unit of phosphoric acid production. Supply of additional streams of wastewater from the neighbouring settlements.	The Plant is granted with ISO 9002 and "Responsible Care" Certificates. In acknowledgement of phosphogipsum management the Plant was certified by US EPA Environment Center. BAT is introduced. In spite of application of all appropriate techniques of pollution reduction and treatment some HELCOM requirements for dust and fluorides emission are only partly observed.	October 2002

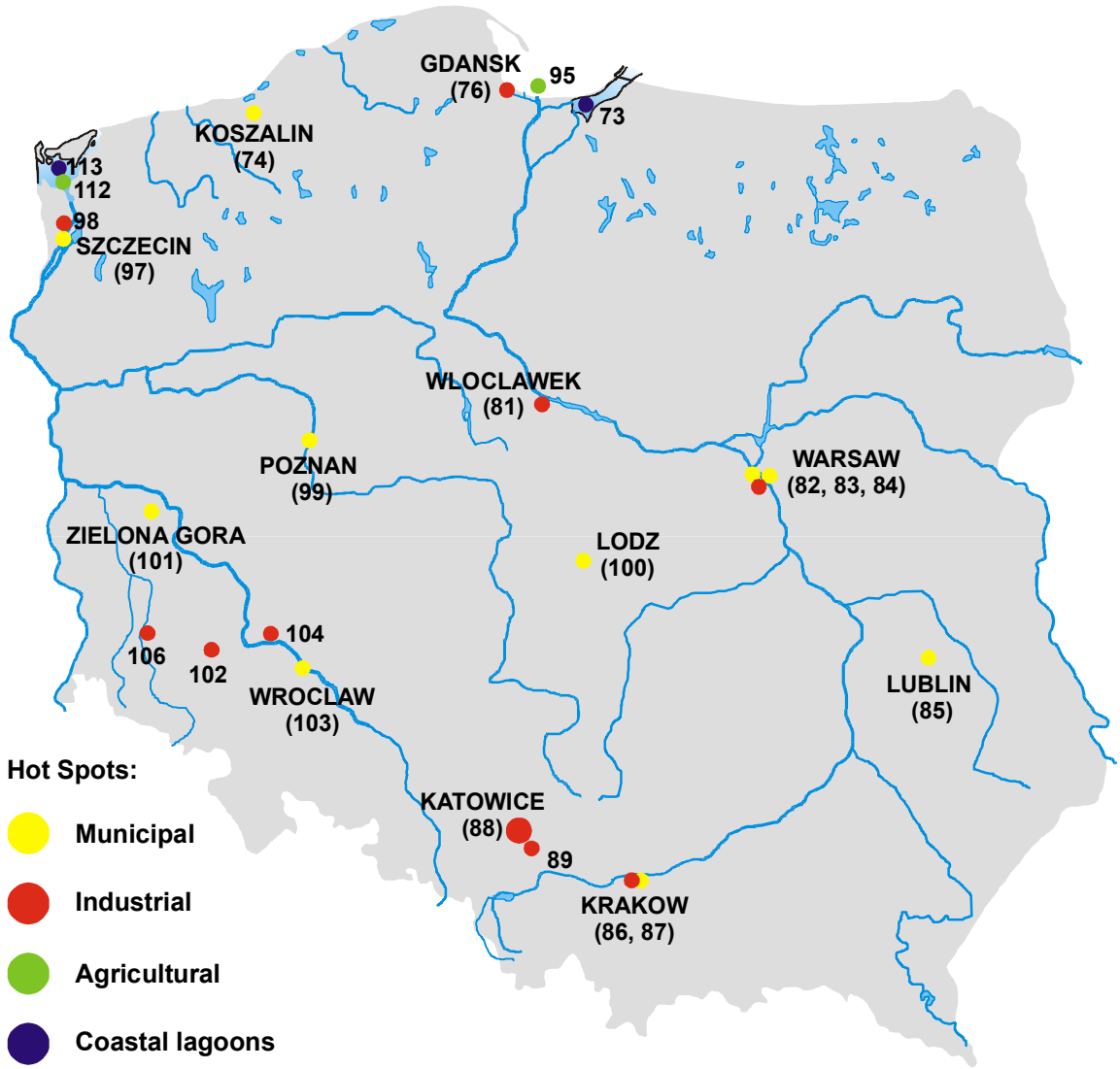
Paper Mill "Szczecin-Skolwin" in Szczecin Hot Spot No. 98.2	Packing paper and newsprint production. No pulp production. The Mill is equipped with own WWTP treating industrial wastewater (10,000 m^3/d) and minor amount of the municipal wastewater from the city of Szczecin (2,000 m^3/d). Average pollution concentration [mg/l] in 2001: BOD5 – 10.56 COD – 56.83 Suspended matter – 7.46 N-tot – 7.92 P-tot – 0.35.	Construction of de-inking of waste paper unit in progress. It will enable: • production based on used paper instead of pulp; • closing of energy-consuming grinder room.	Lack of relevant HELCOM Recs.	(2002)
Left-bank WWTP in Poznan Hot Spot No. 99.2			No information.	
WWTP serving Municipal Agglomeration of Lodz Hot Spot No. 100	Construction of WWTP in progress. WWTP is planned to serve the city of Lodz and neighbouring cities. Actually 99 % of wastewater undergo mechanical treatment and 86 % biological one. Annual average pollution concentration [mg/l] and reduction [%] in 2001: BOD_5 – 23.34 (88.9 %) COD – 68.39 (85.2 %) N-tot – 28.83 (43 %) P-tot – 2.64 (64.5 %).	Completion of all WWTP's units to serve the whole agglomeration area. Construction plans include heating and power plant where natural gas will be utilised.	Completion of all WWTP's units to serve the whole agglomeration area. Construction plans include heating and power plant where natural gas will be utilised.	2006
WWTP "Lacza" in Zielona Gora Hot Spot No. 101	Mechanical – biological plant based on 3-stage biological treatment. Actual capacity 51,200 m^3/d (195,000 PE). The plan serves 94 % of population. Sewerage covers 90 % of city area. Annual average pollution concentration [mg/l] and reduction [%] in 2001: BOD5 – 6.2 (99 %) COD – 26 (97 %) N-tot – 14.5 (73 %) P-tot – 0.4 (96 %). The sludge is utilised in municipal composting plant. The sludge quality enables the use for agricultural purposes.	Further development of sewerage (with accompanying equipment such as pump stations) is planned on the remaining part (10 %) of city area.	Relevant HELCOM Recs. fulfilled.	October 2002
Poultry Plant in Prochowice Hot Spot No. 102.1	The PLANT is equipped with own mechanical-biological plant where wastewater from poultry slaughter and processing units, production of feed meal and social part of the plant.	Modernisation of WWTP	No information.	

Copper Mining and Metallurgy Complex "Polish Copper" Copper Metallurgy Plant "Glogow" in Zukowice Hot Spot No. 102.2			No information.	
Copper Mining and Metallurgy Complex "Polish Copper" Copper Metallurgy Plant "Legnica" in Legnica Hot Spot No. 102.3			No information.	
WWTP in Wroclaw Hot spot No. 103	Mechanical-biological WWTP with chemically supported phosphorus removal. The start-up finished in July 2001. Sewerage covers 94 % of city area. The WWTP treats approx. 60 % of the total wastewater volume (70,000 m^3/d). The designed capacity is 120.000 m^3/d. The remaining 40 % undergo treatment on irrigation beds with capacity of 40.000 m^3/d. Annual average pollution concentration [mg/l] in 2001: BOD_5 – 9.0-10.0 COD – 33.0-41.0 N-tot – 9.0-10.7 P-tot – 1.1-1.2. Sludge is landfilled according to established rules.		No information.	(2002)
Chemical Plant "Rokita" in Brzeg Dolny Hot Spot No. 104	Air emission (incl. emission from the separate company responsible for energy supply to plants) in 2001[t]: SO_2 – 398,851 NO_x – 513,849 Propylene – 126,998 Aliphatic hydrocarbons – 9,482 Ethylene oxide – 13,186 CO2 – 199,482 Dust – 211,990. Solid waste in 2001 [t]: produced – 70,650 (incl. 9,106 hazardous) utilised or rendered – 12,228 (incl. 6,141 hazardous). The Plant introduced automatic wastewater monitoring.	Modernisation of Plant's WWTP in progress. The wastewater volume was reduced due to closing down of phenol, betanaphtol, sorbite, TRI and chloroacetic acid production units. In the plant protection products unit the following measures were taken: • installation of modern technology of herbicides conditioning; • removal of chlorophenol	BAT is not elaborated yet for the techniques used in the plant. The requirements of HELCOM Recs. are mostly fulfilled, except COD concentration at the outlet. As modernisation of WWTP is almost completed, the parameter will be observed in the nearest future. The Plant is granted with "Responsible Care" Certificate.	2003

	Annual average of pollution concentration [mg/l] and load [t] in 2001: COD – 367 [1,473] Phosphorus – 1.6 [6.4] Nitrogen – 9.19 [36.8] Hg – 0.006 [37] Cd – 0.002 [13] Cu – 0.017 [96] Ni – 0.036 [180] Pb – 0.020 [158] Cr – 0.113 [478] Zn – 0.200 [1,302].	historical stockyards; further land reclamation was done as well; • reduction of wastewater and air emission due to installation of cyclone (collecting dried herbicides on de-dusting line). With regard to reduction of mercury emission the following measures were undertaken: • modernisation of products cleaning from mercury remaining pollution; • reduction of mercury content in wastewater due installation of new filter; • modernisation of WWTP.		
Chemical Plant "Wizow" in Boleslawiec Hot Spot No. 106	Production of phosphoric acid based on Kola apatite. Solid wastes resulting from production (phosphogipsum, natrium fluosilicate and post-neutralisation mud) are landfilled or utilised, whenever possible. Technology used enables the reduction of dust and fluorides emission (fluidic and wet scrubbers). Air emission in 2001 [t]: Fluorides – 900 Dust – 13,000. Closed water cycle (97 % reduction of water intake and wastewater discharged). Pollution load discharged in wastewater in 2001 [kg]: P-tot – 737 Fluorides – 57.	Continuous reclamation of slopes of phosphogipsum dump.	Relevant HELCOM Recs. fulfilled.	(October 2002)
Agriculture in Odra river catchment Hot Spot No. 112	The idea of identification of specific areas being the main sources of agricultural run-off is still under elaboration.			

Szczecin Lagoon Hot Spot No. 113	Transboundary area. The state border divides the lagoon into Small Lagoon (Germany) and Great Lagoon (PL). The Lagoon is a part of Odra river estuary. Odra basin covers approx. 1/3 of Polish territory. National Park (with status of BSPA) was established on the Wolin Island. Odra river waters are the main source of pollution, however the slow but systematic improvement of their quality is noted. Another important source of pollution is city of Szczecin (Hot Spot No. 97). Problems affecting the environment of Szczecin Lagoon are: • high eutrophication; • threats to water resources; • storages of specific toxic waste (grave-yards) located near the lagoon; • lack of proper prevention system against flood and droughts; • damages caused by the Russian army formerly stationing in Poland (Swinoujscie). Lack of explicit criteria makes impossible the determination of deletion timeframes/date from the JCP Hot Spot List.

Map of Polish Hot Spots



Minutes of the meeting
with representatives from the Czech authorities
Prague, Czech Republic
30 October 2002

Introduction

The Preparatory Group under the Programme Implementation Task Force (PITF) has been arranging Regional Workshops to cover all the Baltic Sea countries during the last two years. A preliminary midterm evaluation of the Workshops was prepared in 2001 and the conclusions and positive experiences have been reported to PITF.

The Meeting was convened at the invitation of the Czech Ministry of Environment with the purpose of discussing the status of the Czech Hot Spots under the Joint Comprehensive Programme (JCP). The List of Participants is enclosed in Annex 1.

Cooperation on the JCP

Mr. Kinkor, President of the International Commission for Protection of the Oder River against Pollution (ICPOR), stressed that the Czech Republic is not directly involved in the HELCOM work but that the Czech Republic will participate and contribute to the JCP implementation through the ICPOR.

It was agreed that letters regarding the cooperation should be exchanged through the ICPOR. Furthermore, it was agreed that HELCOM could be invited to the next meeting of the ICPOR and that Mr. Kinkor as the President could be invited for the next meeting of the Programme Implementation Task Force (PITF) in Stockholm on 18-19 November 2002.

Discussion of the Czech JCP Hot Spots

The following three Hot Spots were discussed:

Hot Spot No.	*Location*	*Site name*	*Site type*
109	Oder	Ostrava	Municipal & Industrial
110	Oder	Ostrava Area	Industry (Chemical, Pulp & Paper etc.)
111	Oder	Upper Basin	Salt Control

The definitions of the Hot Spots were somewhat unclear, but the discussion was based on information in the Pre-feasibility studies from 1991 and 1992 which formed the basis for the establishment of the List of Hot Spots under the JCP.

Hot Spot No. 109 Ostrava (Municipal & Industrial)

Mr. Trdlica presented information about the development of municipal wastewater treatment in the Ostrava area.

The 15 most important municipal waste water treatment plants (WWTPs) in the Ostrava area created the Hot Spot. The data from 1989 was used when the Hot Spot was identified. Today there are 13 municipal WWTPs in this area with a capacity larger than 20.000 P.E. Total annual load data of BOD5 and SS for 1989 and 2001 were presented.

In the mentioned area five new WWTPs have been constructed and four have been reconstructed and modernised. Two plants have been closed down and the wastewater connected to one larger plant. All WWTPs have N-removal and twelve of the plants have P-removal.

The national regulations nearly correspond with the EU WWT Directive. A new Government Decree which will fully implement EU regulations is considered to be in force in 2003. Only wastewater treatment plants with a capacity less than 20.000 P.E. have sometimes problems with the discharged water quality with regard to N and P limits. All cities larger than 10.000 P.E. have biological WWTPs.

During the recent years the drinking water price has increased from 0.60 up to 13-16 Czech Krowns/m^3. The same price is for waste water discharge. The consequence of increased water prices is the decrease in consumption and discharge. In total 330 million Euros has been invested in construction and modernisation of treatment plants and in sewerage systems in the Oder catchment area.

It was agreed that Mr. Trdlica will provide information about the capacity of each of the remaining 13 WWTPs and the annual average discharge concentrations of BOD5, COD, SS, Total-N and Total-P for each plant.

- **Hot Spot No. 110** Ostrava Area (Industry -Chemical, Pulp & Paper etc.)

A list of the 35 largest industries was presented with 2001 data on annual discharges of BOD5, SS, dissolved matter, and oil.

The amount of wastewater from the industries in the Oder catchment area has been reduced from about 180 to 60 million m^3/year from 1990 to 2001. Major reductions of BOD5, COD and SS have been reached. Important factors have been the closing down of factories or reduction of production. In many cases the technology was changed and new WWTPs constructed. Most big industries in the region are Joint Stock Companies with a major share of state participation. Smaller industries are private.

The Government Decree No. 82/1999 Coll. on discharges from municipalities and industries will enter into force in the beginning of next year and will fully comply with EU regulations. According to the meeting some Czech regulations on heavy metals are stronger than the EU requirements.

Some industries were discussed, in particular because they were mentioned in the Pre-feasibility studies. No special data was presented apart from those mentioned above.

* Biocel Paskov: Pulp & paper industry.
The production has been modernised and special treatment measures implemented. The technology has been changed and chlorine is not used today.

* Nova Hut: Two metal industries in Ostravice and Lucina.
Treatment plants have been constructed and metal discharges are in line with regulations. Production is reduced.

* Vitkovice: Metal industry.
The production has been reduced and the wastewater treatment improved. The industry complies with the permit.

* MCHZ Ostrava (Moravske): Chemical industry.
There are still some problems with the coke plant. The phenol containing wastewater is discharged to the large municipal WWTP in Ostrava, which can handle phenols.

* Ostramo oil refinery: Closed.

* OKD Koksovna: Coke plants.
The two coke plants are still active. The phenol containing wastewater is discharged to the large municipal WWTP in Ostrava, which can handle phenols.

* OKD Coal mines (Karvina):
Of the original mines only six in the Karvina area remain - the rest located in the Ostrava area have been closed down. The COD discharge from a coke plant to saline water was stopped in 1995. The discharge of saline water is discussed under Hot Spot No. 111.

Major improvement seems to have been obtained. More detailed information is needed before a possible deletion can be considered.

- **Hot Spot No. 111** Upper Basin (Salt Control)

The discharge of saline water has been reduced due to the closing of all mines in the Ostrava area. The discharge has been reduced from 30 million m^3/year (1990) to 20 million m^3/year (2001). The COD discharge from a coke plant to saline water was stopped in 1995.

Only six mines remain active in the Karvina area and the discharge is to the Olse River leading to the Oder River. The water from the closed mines in the Ostrava area is discharged to Ostravice River (leading to the Oder River) in order to avoid flooding of the Karvina mine area.

The meeting considered the influence on the Baltic Sea of the saline discharges via Oder River. It was agreed that this Hot Spot may be deleted due to the same reasons as the corresponding Polish Hot Spot. The HELCOM Secretariat will provide the information to the upcoming PITF 19 meeting.

Conclusion

The meeting was very useful for all parties. The discussions gave a good impression of the progress and the implementation of new measures at the JCP Hot Spots. The Secretariat will present a proposal for deletion of Hot Spot No. 111 to the upcoming PITF 19/2002 meeting and look forward to continued cooperation via the Oder Commission.

Annex 1

List of Participants:

Ministry of the Environment of the Czech Republic:

Mr. Jaroslav Kinkor, Director of Water Protection Department
and President of the International Commission for the Oder River
Mr. Martin Salvet, Department of International Affairs
Ms. Doubravka Nedvedova, Water Protection Department
Mr. Rudolf Cejnar, Department for European Integration

Water Research Institute T.G. Masaryk:

Mr. Ludek Trdlica

Secretariat of Helsinki Commission:

Mr. Mieczyslaw Ostojski, Executive Secretary
Mr. Claus Hagebro, Professional Secretary