

Agenda Item 6 Management programmes for coastal lagoons and wetlands

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DISCUSSION PAPER ON THE SZCZECINSKI/ODER LAGOON

During the Tenth Regional Workshop in Wroclaw, Poland, in October 2002 the development at the two transboundary coastal lagoons (Hot Spots No. 73 and 113) was discussed. It was noted that such "joint-Hot Spots" are difficult to manage and that the criteria for deletion are not clear. It was proposed that Poland and Germany should present papers (preferably a joint paper) about the problems of the Szczecinski Lagoon and the handling of joint-Hot Spots in general to the Meeting.

Poland presents the enclosed discussion paper on the problems affecting the area of the Szczecinski/Oder Lagoon (Hot Spot No. 113) and on how to handle it within the JCP.

The Meeting is invited to consider the document and to discuss how to handle joint Hot Spots in the future.

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Date: November 13, 2002
To: Mr. Claus Hagebro, Professional Secretary
Helsinki Commission
E-mail: Claus.Hagebro@helcom.fi

Our ref.: 351/11/2002

Dear Sir,

With reference to the proposal made at the 10. HELCOM PITF Regional Workshop (Wrocław, 8-9 October 2002) regarding presentation by Poland and Germany papers about the Szczecinski/Oder Lagoon (Hot Spot No. 113), and to the 19. Meeting of PITF, to be held in Stockholm on 18-19 November 2002, please find attached a discussion paper on problems of the Szczecinski/Oder Lagoon and some consideration with regard to how to handle it within the JCP.

At the same time I would like to pay an attention that due to the short time left for paper preparation we have not managed to consult it with the German Party. Anyway, I believe it can serve as a good starting point for the discussion at the Meeting.

Yours sincerely,



Monika Stankiewicz

The Szczecinski/Oder Lagoon – JCP Hot Spot No. 113

A discussion paper on the problems affecting the area and on how to handle it within the JCP, submitted by Poland.

The Szczecinski/Oder Lagoon is a transboundary area shared by Poland and Germany, located at the South of the Baltic Sea. Its coastal area is characterised by the high biodiversity on the one hand and strong economic pressure on the other. Some parts of the region are strongly industrialised, have suffered from environmental degradation, and some parts still can be regarded as hardly affected by the human activities. It has been considered one of the highest priority regions in the field of the Baltic Sea environmental protection.

The Szczecinski/Oder Lagoon, being part of the estuary of the Oder River, is a wide littoral reservoir. Its area is 687 km² and its average depth is 3.8 m. The reservoir is characterised by specific hydrochemical properties of waters which are formed under the influence of inland water inflow and water exchange with the Baltic Sea through the Pomeranian Bay. The volume of the waters of the Szczecinski/Oder Lagoon is 2.58 km³ and they are exchanged 6-7 times a year on average. Damming up of the waters which occurs in this area causes flooding of the coastal areas which are valuable habitats of flora and fauna and at the same time natural treatment systems for the pollution carried in by river tributaries and area run-off.

The state border between Germany and Poland runs north to south and divides the reservoir into two parts: the western part, called the Small Lagoon and the eastern part, characterised by higher water exchange dynamics, called the Great Lagoon. The Great Lagoon covers the area of 410 km² what constitutes about 60 % of the lagoon area.

The main tributary of the Szczecinski Lagoon is the Oder River. The basin of this river covers about one third of the area of Poland (about 119 000 km²). The water from irrigation polders is discharged from the direct basin to the Lagoon. The water outflows through three straits: through Swina and Dziwna into the Pomeranian Bay and through Piana into the Greifswald Lagoon. The biggest lake in the mouth of the Oder River is Lake Dabie which is directly connected with the Szczecinski/Oder Lagoon. The pollution and biogenic compounds discharged into Lake Dabie and coming mainly from the Szczecin agglomeration are a serious burden to the whole estuary of the Oder River.

In the area of the Wolin Island the Wolinski National Park exists, which represents an area of unique Pomeranian nature. Through including the adjacent waters of the Baltic sea one-mile wide and the internal sea waters of the Szczecinski Lagoon the park became the first sea park in Poland. The park also obtained the BSPA status (*Baltic Sea Protected Area*).

The assessment of the pollutants discharged in the area of the estuary of the Oder River was made possible by the data of the balance of pollutants discharged into the Oder River, the Szczecinski/Oder Lagoon and the Pomeranian Bay, carried out in 1995 within the framework of the PCL-3 programme of HELCOM. PLC-4 is now being prepared, which includes area pollution additionally, mainly from agriculture.

The examinations that have been carried out allow of the following statements:

- The quality of the waters of the Szczecinski Lagoon remains under influence of fresh inland water and saltwater of the Pomeranian Bay. Average salinity of these waters is 1-2‰.
- The analysis of the many years' changes of the quality of the Oder River waters indicates a systematic improvement in the boundary area. The value of some indicators such as

the concentration of organic compounds, suspended matter, phenols and chlorides is approximating to the desired value. In the last few years an improvement in the sanitary condition of the waters and a slight decrease in the contents of biogenic compounds can be seen as well.

- The wealth in phosphor compounds has decreased considerably. The concentration of mineral phosphor compounds is a limiting factor for the eutrophication and algae expansion.
- In the waters of the Szczecinski/Oder Lagoon no significant industrial pollution has been discovered lately.
- The pollution accumulated in the bottom sediments of the Lagoon and the continuous inflow of pollution discharged from the tributaries influence the present state of the waters of the reservoir. The water of the Oder River is the main source of pollution in the Szczecinski/Oder Lagoon. The Oder River carries the contamination flowing from the upper stretch of the river, from the Szczecin agglomeration (lack of sewage treatment plants) and from the Police.

The estimation of the grade of pollution reduction that takes place in the Lagoon is a very difficult task due to complicated conditions of water exchange and mixing which exist here. In spite of the situation the natural and economic values of the area of the Lagoon and its surroundings fulfil the requirements of UNESCO to recognise it as a biosphere reserve.

The Szczecinski/Oder Lagoon is of a great importance to the region. It is a reservoir of high effectiveness of fishery (mostly roach, bream, perch and pike-perch). Through the Great Lagoon runs the waterway from Swinoujscie to Szczecin. Swinoujscie is one of the most popular holiday resorts and health-care resorts of the southern coast of the Baltic Sea and at the same time it is a sea harbour of international importance. Szczecin is the biggest city of the province. The biggest industry of the province is concentrated here (including harbour and shipyard industry). It is also an important traffic junction of land and water transport. In Police one of the biggest chemical plants producing phosphate fertilisers is located.

The coastal areas of the Szczecinski Lagoon have already been developing dynamically, among other things due to the location close to the European Union border, the attractiveness of this part of the Baltic coast for tourists and the developing co-operation with western and northern neighbours.

In order to improve the wastewater management in the area many investments were implemented what have resulted in reducing the pollution discharged in comparison to 1995. Still, municipal and industrial wastewater from the Szczecin contributes significantly to the pollution load discharged to the Szczecinski/Oder Lagoon from its vicinity.

The greatest problems affecting the environment of the Szczecinski/Oder Lagoon area are:

- Emission of the pollution (from point and non-point sources).
- High eutrophication level of the waters of the Lagoon and the Oder River. The consequence of the eutrophication of the waters is a change in the species composition of game-fish (the quantity of such fish as: eel, pike and whitefish is decreasing while the quantity of roach, perch and pike perch is increasing).
- Threats to water resources by the excessive exploitation of water resources.
- Threats to earth surface by the improper solid waste management.
- Localisation in the area around the Szczecinski Lagoon some specific toxic waste storage sites called grave-yards (concrete containers in which mostly overdue pesticides and empty packaging are stored).

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- Lack of proper prevention system against floods and droughts.
 - Lack of a joint environmental protection programme with Mecklenburg – West Pomerania.
 - Changes in the economic and political system of Poland causing deep negative economic changes including the wealth of the inhabitants.
 - Damages caused by the forces of the Russian Federation stationed in Poland (Swinoujście).

Taking into account the identified functions and utilisation methods of nature resources the following directions of development are advised:

- * Preservation and development of the key branches of industry resulting in increasing of the income of the inhabitants in the area in accordance with the eco-development principle. The conditions of economic growth stimulation are: investments for the benefit of modern, environmental friendly technologies, modernisation of infrastructure for industrial production and reorganisation of the industrial processes management systems.
- * Protection of unique nature and landscape values through maintaining the previous forms of protection in the area and creation of new ones.
- * Integrated protection of water resources, being a particular value for the area of the Szczecinski/Oder Lagoon, conditioning preservation of the exceptional economic and nature values of the area.

The Szczecinski/Oder Lagoon has been identified by the JCP as a priority "Hot Spot" (No. 112) in need of a comprehensive environmental management programme. It has been chosen as one of the pilot areas for the elaboration and implementation of the *Integrated Coastal Zone Management (ICZM)* plans under the Element 4. of the JCP.

HELCOM PITF Working Group on Coastal Lagoons and Wetlands (HELCOM PITF MLW), created in 1993, was designated to co-ordinate the programmes development and implementation. The leadership was performed by the World Wide Fund for Nature (WWF).

In 1993 the elaboration of the ICZM plans was started. The first version of the ICZM plan for the Szczecinski/Oder Lagoon was prepared in 1995 by the Polish Area Task Team, in co-operation with German side. In years 1998-1999 the plan had been revised and updated¹.

¹ Guidelines for Integrated Coastal Zone Management of the Szczecinski Lagoon (the Polish side), Szczecin, 2000.

General considerations

1. A specific character of the Szczecinski/Oder Lagoon in the Baltic Sea region relates to the fact that its coastal area comprises very valuable and well preserved areas with a high biodiversity, and at the same time cities and agglomerations having the most negative impact on the Lagoon's environment.
2. A situation is complicated by the division of the reservoir between two countries. A close co-operation performed different levels and in many spheres is required to manage the coastal area in integrated manner. Such co-operation should be inherent in elaboration of any development strategy for the region to set a common priorities and coherent directions of development.
3. Additionally, the Water Framework Directive in its Article 13 requires development of a single international river basin management plan in the case of an international river basin district what pose a challenge for the future.
4. It is difficult to set clear, synonymous criteria which would allow an assessment if a given coastal lagoon hot spot is ready for deletion from the JCP List or not. According to HELCOM PITF *Criteria for Inclusion and Deletion of Hot Spots* a precondition for a such assessment is existence of formally approved management plan, with secured financing for its implementation, and which includes many aspects, not only related to the environment but also to economic development and legislation.
5. Criteria set by PITF for coastal lagoon hot spots are ambitious and for the Szczecinski Lagoon Hot Spot they are not possible to be fulfilled (requirement that: „Human activities in the area with a negative impact, such as land reclamation or discharge of nutrients and pollutants, etc. have ceased.”).
6. A question arises about delimitation of the lagoon coastal area. The size of the coastal zone of the lagoon should allow for consideration of all physical, biological and human factors and activities which exert influence on space and resource of natural environment. To apply such an approach it requires considering also the Odra river area.
7. The coastal lagoon hot spots should not be treated in the same way as municipal or industrial hot spots. The aim of inclusion of those specific areas in the JCP List was to underline their importance for the Baltic Sea ecosystem and to consider them as the priority ones. A proper management of such areas relates not only to investments and environment but also covers institutional and social issues, legislation, but those are much more difficult to assess. A procedure applied for hot spots inclusion and deletion seems to be inadequate with regard to coastal lagoons.