

## **DATABASE MANAGEMENT SUPPORT SYSTEM FOR PROTECTED WETLANDS - BIEBRZA NATIONAL PARK CASE STUDY**

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A main task of the Biebrza National Park (BPN) is protection of natural values of wetlands and connected with them fauna and flora. Protection of so large and varied region can be efficient as result of the combined measures: water supply and water retention for the support of the suitable level of waters, mowing, grazing, forest management, waste disposal, fire precautions, lofting of tourist routes etc. The implementation of these measures entails the series of activities connected one with another. The efficiency of proposed activities can be checked only on the ground of widely understood monitoring which is at present operated in the following networks: ground water piezometers, surface water gauge stations, meteorological stations, flora transects and fauna observations. In order to combine the results of monitoring with existing forecasting models, Management Support System (MSS) was built. It was realized within in the framework of the PIN-MATRA project by several Polish and Dutch institutions including universities, research institutions, park administration and NGO's. MSS was aiming at several functions: streamlining and formalizations of various knowledge sources; identifying gaps in knowledge; focusing monitoring programmes and adding to transparency in decision making. MSS consist of three parts, namely: data catalogue and GIS, hydrological module and ecological module. Implementation of the MSS in the Park showed a few limitations in the use of such tool including: gaps of knowledge in formalization of the ecological processes, institutional constrains on sharing data between administration and NGO's, individual approach of Park staff in using numerical based information. On the other hand MSS implementation was important step in the capacity building of the park administration, in structuring existing ecological and management data sets as well as introducing new approach in the decision making.