The institution	**Name**: Centre for Ecological Research of Polish Academy of Sciences
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Is interested in the participation in a project that will be prepared and submitted in the following topic:	
Number and title of the area (from Work Programme)	**THEME 6** ***ENVIRONMENT (INCLUDING CLIMATE CHANGE)*** ***Area 6.2.1.1 Integrated resource management***
Number and title of the open topic (from Work Programme):	**ENV.2010.2.1.1-2 Integrated resource management based on land and landuse management**

Short description of the organisation: The research program of the Centre focuses on the mechanisms and consequences of biodiversity. Mathematical modelling of ecological processes is center of most of our research. The Centre coordinates research government program Biodiversity of ecosystems. Additionally, researchers of the Centre conduct about twenty projects funded by the Ministry of Science and Higher Education. Apart from standard laboratories and animal rearing facilities used for ecological experiments, the Centre is equipped with instruments for chemical and microbiological analyses, and for studies in soil ecology, ecotoxicology, and hydrobiology. We have started close cooperation with Metapopulation Research Group from Helsinki University to apply advances of reserve network planning to improve Polish nature reserve system

Proposed contribution to the project:
We plan to build internet portal supporting spatial planning and infrastructure development in the face of climate change. Portal would supply information about changes of biodiversity hotspots and species ranges in coming eight decades in Central Europe. This knowledge would be broadly used by stakeholders, developers, local councils or even foresters and farmers. We would take advantage of advances in both modeling climatic envelopes (Thuiller et al 2008) and in reserve prioritization (Kremen et al 2008). Modeling would involve all Polish birds, butterflies and plants and use spectrum of habitat and climatic information. Modeling might be extended to other neighboring countries. To sum up it is attempt to both predict collisions between infrastructure development and future diversity hotspots and mitigate these effects by presenting easily available information to very broad audience.

References:
Kremen C et al 2008. Aligning conservation priorities across taxa in Madagascar, a biodiversity hotspot, with high-resolution planning tools. Science 320:222-226
Thuiller W, Albert C, Araújo MB, Berry PM, Guisan A, Hickler T, Midgley GF, Paterson J, Schurr FM, Sykes MT, Zimmermann NE. 2008. Predicting global change impacts on plant species' distributions: Future challenges. Perspectives in Plant Ecology, Evolution and Systematics 9:137-152
Examples of papers can give idea on our international cooperation:

Han CS, Jablonski PG (2009) *Female Genitalia Concealment Promotes Intimate Male Courtship in a Water Strider*. PLoS ONE 4(6): e5793.
Matyjasiak P., Marzal A., Navarro C., de Lope F., Moller A.P. 2009, Fine morphology of experimental tail streamers and flight manoeuvrability in the house martin *Delichon urbica* Functional ecology vol. 23, n°2, pp. 389-396

Ulrich W., Zalewski M. 2006 - Abundance and co-occurrence patterns of core and satellite species of ground beetles on small lake islands. - Oikos , 114: 338-348.
Jabłoński P.G., Lasater K., Mumme R.L., Borowiec M., Cygan J.P., Pereira J., Sergiej E. 2006 - Habitat-specific sensory-exploitative signals in birds: propensity of dipterian prey to cause evolution of plumage variation in flush-pursuit insectivores - Evolution, 60: 2633-2642.

Kaliszewicz A., Johst K., Grimm V., Uchmański J. 2005. Predation effect on the evolution of life-history traits in a clonal oligochaete. American Naturalist 166: 409-417

Other information (if relevant): Project will be carried out with close cooperation with Metapopulation Research Group from Helsinki University.