

Ecosystem Services Assessment of the Nemunas River Delta

Brenda Rashleigh, U.S. Environmental Protection Agency, Athens, GA and Arturas Razinkovas, Coastal Research and Planning Institute, Klaipeda University, Klaipeda, Lithuania

The concept of ecosystem services recognizes the services, and benefits, provided to people by ecosystems. The Nemunas River Delta, in Lithuania, is a valued area that can provide a range of services. We conducted a meta-analysis of existing studies done on the region to identify and create a conceptual model for the services of this region, using the DPSIR framework. Our model identified nine services: carbon storage, flood/storm protection, waste dilution, biodiversity, food, waterways, industrial products, recreation, and fishing; these have complex links to drivers and pressures. This approach allowed us to identify four trade-offs between services, and also highlight two areas where services responded similarly to pressures and may be bundled, or considered together. This work contributes to the understanding of services in transitional waters, where few studies have been conducted, and provides a framework for future decisions and modeling efforts.