

## **PEMILIHAN LOKASI KAWASAN KONSERVASI MANGROVE DENGAN PENDEKATAN SISTEM INFORMASI GEOGRAFIS (SIG) PARTISIPATIF DI WILAYAH PANTAI KABUPATEN DEMAK**

### **Abstrak**

Kawasan konservasi merupakan kawasan yang sangat vital bagi wilayah kepesisiran, salah satunya wilayah kepesisiran Kabupaten Demak yang mengalami erosi pantai dan genang pasang air laut. Penentuan lokasi kawasan konservasi sendiri pada dasarnya berkaitan dengan keputusan penggunaan lahan, yang melibatkan banyak faktor dan aktor. Penelitian ini berusaha untuk memasukkan prioritas para pemangku kepentingan dalam pemilihan kawasan konservasi mangrove, sehingga diharapkan dapat terpilih lokasi kawasan konservasi mangrove dengan potensi konflik kecil.

Kriteria yang dipertimbangkan dalam pemilihan lokasi ini meliputi aspek fisik (kesesuaian lahan), sosial, pembiayaan, dan ancaman. Data primer dan sekunder dikumpulkan untuk menyusun keempat kriteria tersebut. Data primer berupa sampel air dan tanah serta pengukuran tinggi gelombang, diperoleh melalui survei lapangan dan uji laboratorium. Data sekunder berupa data kependudukan diperoleh melalui studi literatur. Prioritas pemangku kepentingan diperoleh melalui perbandingan kriteria berpasangan dan dianalisis dengan metode *Analytical Hierarchial Process* (AHP), untuk selanjutnya dikombinasikan dengan Sistem Informasi Geografis (SIG) membangun *Spatial DSS* berbasis partisipasi masyarakat.

Berdasarkan hasil analisis, diperoleh hasil bahwa pemangku kepentingan pada level lokal (kelompok mangrove, petani tambak, dan perangkat desa) lebih memprioritaskan aspek sosial dibandingkan aspek fisik, pembiayaan, dan ancaman; sementara pemerintah daerah lebih memprioritaskan aspek pembiayaan. Dengan prioritas tersebut, lokasi kawasan konservasi mangrove yang paling memenuhi prioritas pemangku kepentingan (prioritas I) didapati seluas 51,7 ha; terletak di wilayah pantai Desa Babalan dan lahan tambak garam di Desa Kedungmutih, Kecamatan Wedung; sedangkan lokasi yang cukup memenuhi prioritas pemangku kepentingan (prioritas II) didapati seluas 1.626,9 ha; terletak di wilayah pantai Kecamatan Wedung, Bonang, dan sebagian kecil Karangtengah. Konservasi mangrove dapat dilakukan melalui pengembangan ekowisata mangrove (wilayah pantai Kecamatan Sayung) dan penanaman mangrove di areal tambak (areal tambak di Kecamatan Sayung, Karangtengah, Bonang, dan Wedung).

Kata kunci : SIG partisipatif, kawasan konservasi, mangrove

***SITE SELECTION OF MANGROVE CONSERVATION AREA  
BASED ON PARTICIPATORY GEOGRAPHIC INFORMATION SYSTEM  
(GIS) APPROACH IN DEMAK COASTAL AREA***

***Abstract***

*Conservation area is important for coastal area, including Demak coastal area that experiencing coastal erosion and tidal flood. Determining the location of the conservation area itself is basically concerned with land-use decisions, which involves many factors and actors. This study sought to incorporate the priorities of stakeholders in the selection of mangrove conservation area, which is expected to elect the location of mangrove conservation area with minimum conflict potential.*

*The criteria considered in the selection of location include physical aspects (land suitability), social and financial aspects, and also threats. Primary and secondary data were collected to construct those four criteria. The primary data of water and soil samples and measurements of wave height, obtained through field surveys and laboratory tests. Secondary data from population data obtained through literature studies. Stakeholder priorities obtained through pairwise comparison criteria and analyzed with Hierarchical Analytical Process (AHP) technique, to further combined with Geographic Information Systems (GIS) to build a community-based Spatial DSS.*

*Based on the analysis, the results showed that stakeholders at the local level (mangrove conservation group, fish farmers, and village authorities) prioritize the social aspect than the physical aspect, financing, and threats; while local governments prioritize financial aspect. With these priorities, the location of mangrove conservation area that best meet the priorities of stakeholders (first priority) found an area of 51.7 ha located in the coastal area of Babalan Village and salt ponds in Kedungmutih Village, District Wedung; while the location that quite meet the priorities of stakeholders (second priority) were found covering 1626.9 ha located in coastal area of Wedung and Bonang District, and a small portion of Karangtengah District. Mangrove conservation can be done through the development of mangrove ecotourism (in Sayung coastal area) and mangrove planting in fish ponds (Sayung, Karangtengah, Bonang, and Wedung).*

*Keywords: Participatory GIS, conservation areas, mangrove*