Aktivitas budidaya rumput laut di pulau Serangan Kota Denpasar Provinsi Bali = Seaweed cultivation activites in Serangan Island Denpasar City Bali Province

Virgi Citra Nabila, author

Abstrak

Peninjauan aktivitas budidaya rumput laut secara optimal perlu dilakukan mengingat tingginya daya dukung lingkungan dan bernilai ekonomis. Namun perkembangan pariwisata membuat aktivitas budidaya rumput laut terus terdesak. Penelitian ini bertujuan untuk menganalisis kesesuaian wilayah budidaya rumput laut berdasarkan kondisi perairan dan aktivitas budidaya rumput laut di Pulau Serangan beserta hubungannya. Variabel yang digunakan ialah kondisi perairan, pengelola, teknologi, manajemen, dan objek wisata. Kesesuaian wilayah budidaya rumput laut di Pulau Serangan diperoleh melalui pengolahan data citra Landsat 8 tahun 2020 serta pengukuran lapang in situ maupun ex situ. Survey dan wawancara dilakukan untuk menganalisis aktivitas budidaya rumput laut di Pulau Serangan. Metode skoring dan overlay digunakan pada seluruh variabel yang kemudian dianalisis spasial. Analisis statistik deskriptif juga dilakukan untuk menganalisis hubungan antara kesesuaian wilayah berdasarkan kondisi perairan terhadap jumlah produksi rumput laut. Hasil analisis menunjukkan bahwa wilayah yang sesuai untuk budidaya rumput laut terletak di segmen Teluk Lebangan. Aktivitas budidaya rumput laut tinggi terletak di segmen Teluk Lebangan, aktivitas budidaya sedang terletak di segmen Pantai Timur Serangan, dan aktivitas budidaya rendah terletak di segmen Teluk Serangan. Kesesuaian wilayah budidaya rumput laut berdasarkan kondisi perairan berupa suhu, salinitas, arus, muatan padatan tersuspensi, dan oksigen terlarut secara simultan berpengaruh terhadap jumlah produksi rumput laut di Pulau Serangan. Semakin tinggi oksigen terlarut, suhu, dan kecepatan arus maka jumlah produksi rumput laut di Pulau Serangan akan meningkat. Semakin rendah muatan padatan tersuspensi dan salinitas maka jumlah produksi rumput laut di Pulau Serangan akan meningkat.

.....Seaweed cultivation is an alternative use of coastal areas. An optimal review of seaweed cultivation activities needs to be done, considering the environment's high carrying capacity and its economic value. However, the development of tourism has made seaweed cultivation activities continue to be pressed. This study aims to analyze seaweed cultivation areas suitability based on water conditions and seaweed cultivation activities on Serangan Island and their relationship. The variables used are water conditions, cultivation, technology, management, and tourist objects. The suitability of the seaweed cultivation area on Serangan Island was obtained through Landsat 8 imagery data processing in 2020 and field measurements in situ and ex-situ. Surveys and interviews were also conducted to analyze seaweed farming activities on Serangan Island. The scoring and overlay methods were used for all variables, which were then analyzed spatially. Descriptive statistical analysis was also carried out to analyze the relationship between the suitability of the area based on water conditions and seaweed production. The analysis results show that a suitable area for seaweed cultivation is in the Lebangan Bay segment. The high level of seaweed cultivation activity is in the Lebangan Bay segment, moderate cultivation activity is in the Serangan East Coast segment, and low cultivation activities are in the Serangan Bay segment. The suitability of the seaweed cultivation area based on water conditions in temperature, salinity, current, total suspended solids, and

dissolved oxygen has a simultaneous effect on seaweed cultivation activities on Serangan Island. The higher the dissolved oxygen, temperature, and current speed, the amount of seaweed production on Serangan Island will increase. The lower total suspended solids and salinity, the amount of seaweed production on Serangan Island will increase.