

## INTISARI

Pesisir Parangtritis selain memiliki potensi sumber daya alam namun juga mempunyai potensi bahaya kepebisiran yang tinggi seperti tsunami. Keberadaan gumuk pasir yang secara ekologis berfungsi sebagai tanggul alam terhadap ancaman gelombang tsunami saat ini kondisinya mulai rusak. Zona inti yang dikhususkan untuk konservasi mengalami alih fungsi lahan akibat adanya beberapa aktivitas manusia seperti pembangunan permukiman, sarana pariwisata, penghijauan, pembukaan lahan pertanian dan pembukaan lahan tambak. Restorasi zona inti dilakukan pada tahun 2016 untuk mengembalikan fungsi ekologis gumuk pasir. Dampak langsung yang terjadi akibat restorasi ini adalah penertiban lahan terbangun yang berada di zona inti seperti bangunan dan tambak. Penelitian ini bertujuan untuk menganalisis perubahan dan distribusi penggunaan lahan setelah restorasi terutama bangunan sebagai *element at risk* terhadap ancaman tsunami. Perhitungan kerentanan bangunan dilakukan dengan menggunakan model PVRTA-4 yang dimodifikasi. Penilaian risiko bangunan dihitung dengan matriks hubungan antara ancaman (*hazard*) dan kerentanan (*vulnerability*). Hasil penelitian menunjukkan bahwa selama kurun waktu 2015-2019, terdapat penurunan luas gumuk pasir sebesar 4,55% dari luas total zona inti dan sejumlah 50 bangunan di zona inti mengalami relokasi. Bangunan hunian dari zona inti di Dusun Grogol IX dipindahkan ke pesisir Dusun Grogol X. Perkembangan wilayah Dusun Grogol X yang cenderung berpusat di pesisir menyebabkan risiko bangunan pada kelas sangat tinggi mengalami kenaikan dari 8 bangunan menjadi 23 bangunan di tahun 2019.

Kata kunci: gumuk pasir, tsunami, restorasi zona inti, distribusi spasial penggunaan lahan, kerentanan bangunan, penilaian risiko

## ***ABSTRACT***

*Apart from having potential natural resources, the coast of Parangtritis also has the potential for high coastal hazards such as tsunamis. The existence of the dunes which ecologically function as natural embankments in the face of the threat of a tsunami wave is currently in a damaged condition. The core zone which is devoted to conservation has undergone changes in land use due to human activities such as construction of settlements, tourism facilities, reforestation, clearing of agricultural land and cleaning of ponds. The core zone restoration was carried out in 2016 to restore the ecological function of the dunes. The direct impact that occurs as a result of this restoration is the restructuring of the built-up land in the core zone, such as buildings and ponds. This study aims to analyze changes and distribution of land use after restoration, especially buildings as an element at risk against the tsunami hazard. The building vulnerability calculation was carried out using the modified PVT-4 model. The building risk assessment is calculated using a matrix of the relationship between hazard and vulnerability. The results showed that during the 2015-2019 period there was a decrease in the sand dune area by 4.55% of the total area of the core zone and a number of 50 buildings in the core zone experienced relocation. Residential buildings from the core zone in Dusun Grogol IX were moved to the coastal area of Dusun Grogol X. The regional development of Dusun Grogol X which tends to be centered on the coastal area causes the risk of very high-class buildings to increase from 8 buildings to 23 buildings in 2019.*

*Keywords: sand dune, tsunami, core zone restoration, land-use spatial distribution, building vulnerability, risk assessment*