Level of vulnerability of small islands in Indonesia are high to disasters due to climate change, impact on sea level rise, increase in rainfall, and temperature rise. This affects to community life sectors in a small island, namely the settlement, economy, agriculture, tourism, etc. Saugi Island is a small island inhabited in Pangkep District of South Sulawesi. The population is dominated by fishermen community with a population density of ± 129 inhabitants/ha, and the current island area today is 3.2 hectares. Consideration of determining the location of the island’s research is based on the vulnerability of housing and settlements due to high levels of abrasion, as well as the vulnerability of the ecological carrying capacity due to the intensity of economic activity population. Saugi Island potentially exposed to natural disasters like the blows of waves and storms, and rising sea levels.

This paper focuses on disaster mitigation in a small island viewed from the perspective of the architectural pattern of the building and the environment in facing disaster risk. The impact of disasters on community can be prevented as focusing on the arrangement of the buildings and the environment, with technology engineering effort. Spatial planning for disaster mitigation conducted to adjusting the structure and patterns of space utilization with the vulnerability of the region to various forms of natural occurrence, which could potentially occur.

**Keywords:** Saugi Island, spatial planning, disaster mitigation