

**ANALISIS DAYA DUKUNG LINGKUNGAN SEBAGAI KAWASAN
PERMUKIMAN PADA DAERAH RAWAN BANJIR DI KELURAHAN
PARUGA, KECAMATAN RASANA E BARAT, KOTA BIMA, PROVINSI
NUSA TENGGARA BARAT**

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INTISARI

Berdasarkan data BPS Kota Bima, pertumbuhan penduduk di Kelurahan Paruga cenderung mengalami peningkatan setiap tahunnya. Pertumbuhan penduduk yang terus meningkat akan berbanding lurus dengan proses pembangunan yang mengakibatkan bertambahnya kebutuhan lahan akan tempat tinggal dan sumber daya. Perubahan penggunaan lahan dari lahan tidak terbangun menjadi lahan terbangun akan berdampak terhadap berkurangnya daerah resapan yang dapat memicu terjadinya banjir. Kelurahan Paruga menjadi salah satu daerah di Kota Bima yang rawan banjir dengan tingkat kerawanan rendah sampai tinggi terhadap banjir. Selain berkurangnya daerah resapan, banjir di Kelurahan Paruga juga disebabkan oleh curah hujan yang tinggi, kondisi topografi relatif datar dan adanya alih fungsi lahan pada Hulu DAS. Banjir yang terjadi menyebabkan puluhan hingga ratusan rumah terendam dan mengganggu aktivitas masyarakat. Penelitian ini bertujuan untuk mengetahui daya dukung lingkungan untuk permukiman, status daya dukung lingkungan berdasarkan ketersediaan dan kebutuhan air serta merekomendasikan arahan pengelolaan berdasarkan daya dukung lingkungan untuk permukiman dan status daya dukung lingkungan berdasarkan ketersediaan dan kebutuhan air.

Penelitian ini menggunakan gabungan dari metode kuantitatif dan kualitatif. Pengumpulan data dilakukan menggunakan metode survei dan pemetaan, metode uji laboratorium dan metode wawancara. Pengambilan sampel dilakukan menggunakan metode *purposive sampling* berdasarkan peta satuan lahan serta analisis yang dilakukan menggunakan metode overlay, skoring dan matematis. Parameter penentuan daya dukung lingkungan untuk permukiman meliputi curah hujan, tekstur tanah, kedalaman efektif tanah, kemiringan lereng, drainase tanah, erosi dan ancaman banjir sedangkan status daya dukung lingkungan dianalisis berdasarkan ketersediaan dan kebutuhan air.

Berdasarkan hasil penelitian, daya dukung lingkungan untuk permukiman di Kelurahan Paruga terdiri dari 2(dua) kelas yaitu daya dukung baik seluas 60,96 Ha atau mencakup 66,60% dan daya dukung agak jelek seluas 30,57 Ha atau mencakup 33,40% dari luasan daerah penelitian. Status daya dukung lingkungan berdasarkan ketersediaan dan kebutuhan air menunjukkan daya dukung telah terlampaui karena jumlah ketersediaan air (SA) < kebutuhan air (DA). Arahan pengelolaan yang dapat dilakukan yaitu relokasi bangunan yang disesuaikan berdasarkan Peraturan Daerah Kota Bima No.4 tahun 2012, pendekatan teknologi dengan pembuatan sumur resapan dan penerapan agroforestri, pendekatan sosial dan pendekatan institusi.

Kata Kunci: Daya Dukung Lingkungan, Permukiman, Banjir

**ANALYSIS OF ENVIRONMENTAL CARRYING CAPACITY FOR
SETTLEMENT IN FLOOD PRONE AREA IN PARUGA VILLAGE, WEST
RASANA E DISTRICT, BIMA CITY, WEST NUSA TENGGARA PROVINCE**

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ABSTRACT

Based on BPS Bima City data, population growth in Paruga Village tends to increase every year. Population growth that continues to increase will be directly proportional to the development process which results in increased demand for land for shelter and resources. Changes in land use from undeveloped land to built-up land will have an impact on reducing the catchment area which can trigger flooding. Paruga Urban Village is one of the areas in Bima City which is prone to flooding with low to high levels of vulnerability to flooding. In addition to reduced catchment areas, flooding in Paruga Village was also caused by high rainfall, relatively flat topography, and land conversion in the Upper DAS. The floods that occurred submerged tens to hundreds of houses and disrupted community activities. This study aims to determine the carrying capacity of the environment for settlements, the status of the carrying capacity of the environment based on the availability and demand for water, and to recommend management directions based on the carrying capacity of the environment for settlements and the status of the carrying capacity of the environment based on the availability and demand for water.

This study uses a combination of strong and qualitative methods. Data collection was carried out using survey and mapping methods, laboratory test methods, and interview methods. Sampling was carried out using a purposive sampling method based on land unit maps and analysis was carried out using the Overlay, Scoring, and Mathematical Method. Parameter Determination of the carrying capacity of the environment for settlements includes rainfall, soil texture, effective soil depth, slope, soil drainage, erosion, and flood threats while environmental carrying capacity status is analyzed based on water availability and needs.

Based on the results of the study, the carrying capacity of the environment for settlements in Paruga Village consists of 2 (two) classes, namely the carrying capacity of 60.96 Ha or covering 66.60% and the carrying capacity is rather poor at 30.57 Ha or covering 33.40% from the area of the study area. The carrying capacity of the environment based on the availability and need for water shows that the carrying capacity has been exceeded due to the amount of water availability (SA) < water needs (DA). The direction of management that can be done is the relocation of buildings that are adjusted based on the Regional Regulation of the City of Bima No.4 of 2012, the technology approach by making infiltration wells, and the application of agroforestry, social approaches, and institutional approaches.

Keywords: Environmental Carrying Capacity, Settlements, Flood