# INTISARI

Indonesia sering terjadi bencana alam seperti gempa bumi terjadi 8.264 kali selama tahun 2020 dan menimbulkan kerusakan. Salah satu kerusakan yang terjadi yaitu kerusakan hunian. Berdasarkan data Badan Nasional Penanggulangan Bencana (BNPB), kerusakan hunian akibat gempa bumi pada tahun 2020 mencapai 1.926 unit. Hunian merupakan kebutuhan dasar manusia, sedangkan hunian darurat sebagai rumah pengungsian yang diperlukan daerah yang mengalami gempa bumi. Pada tahun 2004, muncul inovasi dari tim Pusat Penelitian dan Pengembangan Perumahan dan Permukiman (Puslitbangperkim) yang menciptakan Rumah Instan Sederhana Sehat (RISHA). Saat ini, hunian sementara masih memiliki kekurangan seperti lama pengerjaannya, struktur bangunan hingga keamanan bangunan. Sehingga penelitian ini dilakukan untuk mengetahui kriteria hunian sementara yang dibutuhkan dan *design requirement* hunian sementara berdasarkan pemenuhan kriteria kebutuhan. Harapannya menghasilkan desain hunian sementara yang cepat dibangun, *knockdown*, tahan gempa susulan, dan memenuhi kebutuhan konsumen. Metode yang digunakan yaitu metode *Quality Function Deployment* (QFD). Sebelum melakukan tahapan QFD, didapatkan 20 kriteria hunian sementara dengan 5 kriteria penting diantaranya tahan gempa, penggunaan material hemat, memiliki komponen dengan jumlah sedikit, memiliki durabilitas (keawetan) tinggi, dan ketersediaan bahan pembuatan mudah didapatkan. Selanjutnya dilakukan analisis dengan metode QFD dan didapatkan spesifikasi terpilih. Berdasarkan spesifikasi tersebut direalisasikan menjadi 3D *modelling*. Setelah didapatkan desain, dilakukan pengujian konsep berupa menilai konsep desain dan memilih spesifikasi sebagai spesifikasi akhir. Pengujian konsep dilakukan dengan penyebaran kuesioner sebanyak 34 responden, dan didapatkan hasil spesifikasi terpilih yaitu *plan* C berupa material tiang penyangga menggunakan baja ringan 1,00 mm. Selain itu material dinding dalam *kalsiclad* dan *gypsum* sebagai dinding luar dan menggunakan besi tulangan untuk pondasi cakar ayam dengan estimasi biaya perancangan hunian sementara yaitu sebesar Rp47.893.335.

**Kata Kunci :** Hunian Sementara; *Knockdown*; *Quality Function Deployment*

# *ABSTRACT*

Indonesia often experiences natural disasters such as earthquakes that occurred 8,264 times during 2020 and caused damage. One of the damages that occur is residential damage. Based on data from the National Disaster Management Agency (BNPB), residential damage due to the earthquake in 2020 reached 1,926 units. Shelter is a basic human need, while emergency shelter is a shelter that is needed for areas experiencing earthquakes. In 2004, an innovation emerged from the Research and Development Center for Housing and Settlement (Puslitbangperkim) team which created Rumah Instan Sederhana Sehat (RISHA). Currently, temporary housing still has shortcomings such as the length of construction, the structure of the building to the safety of the building. So that this research was conducted to determine the criteria for temporary housing needed and the design requirements of temporary housing based on the fulfillment of the criteria for needs. The hope is to produce temporary housing designs that are quickly built, knockdown, resistant to aftershocks, and meet consumer needs. The method used is the Quality Function Deployment (QFD) method. Before carrying out the QFD stage, 20 criteria for temporary house were obtained with 5 important criteria including earthquake resistance, use of economical materials, having components in small quantities, having high durability, and easy availability of manufacturing materials. Furthermore, the analysis is carried out using the QFD method and the selected specifications are obtained. Based on these specifications realized into 3D modeling. After obtaining the design, concept testing is carried out in the form of assessing the design concept and selecting specifications as the final specifications. Concept testing was carried out by distributing questionnaires to 34 respondents, and the results obtained were selected specifications, namely Plan C in the form of support poles using 1.00 mm mild steel. In addition, the inner wall material is kalsiclad and gypsum as the outer wall and uses reinforcing iron for the footplate foundation with an estimated the temporary house design cost of Rp.47,893,335.

***Keywords*** **:** *Temporary House*; *Knockdown*; *Quality Function Deployment*