ABSTRAK

Perancangan Pusat Penelitian dan Pengembangan Tanaman Pangan Sagu di Kota Maba dengan Pendekatan Arsitektur Tropis.

Bagaimana merancang Pusat Penelitian dan Pengembangan Tanaman Pangan Sagu di Kota Maba dengan pendekatan Arsitektur Tropis. Dunia terancam mengalami krisis pangan yang disebabkan ketersediaan lahan dan produksi pangan tidak mampu mengimbangi pesatnya pertambahan penduduk. Sagu merupakan makanan pokok bagi masyarakat Kabupaten Halmahera Timur, bila dikembangkan sagu dapat menjadi pangan alternatif yang dapat dimanfaatkan untuk ketahanan pangan lokal. Tujuan dalam penelitian ini adalah merancang Pusat Penelitian dan Pengembangan Tanaman Pangan Sagu di Kota Maba dengan pendekatan Arsitektur Tropis. Metode penelitian yang digunakan adalah pendataan kondisi *eksisting* lokasi perancangan, dengan metode analisis data iklim tropis menggunakan *website andrewmash* dan *ventusky*. Pendekatan arsitektur tropis dipilih sesuai dengan kondisi iklim lokasi perancangan. Hasil analisis menunjukan massa bangunan yang dibuat memanjang kerah utara selatan intensitas terpapar matahari rendah pada bulan-bulan tertentu, sedangkan massa bangunan yang dibuat menghadap kerah timur barat intensitas terpapar matahari tinggi pada bulan-bulan tertentu, sehingga penggunaan shading dalam prinsip arsitektur tropis dapat menghalau sinar panas matahari yang masuk kedalam bangunan.

Kata kunci: Pusat Penelitian, Pangan, Sagu, Arsitektur Tropis, Iklim

ABSTRACT

Design of a Research and Development Center for Sago Food Crops in Maba City with a Tropical Architectural Approach.

How to design the Sago Food Crop Research and Development Center in Maba City with a Tropical Architecture approach. The world is threatened with a food crisis due to land availability and food production being unable to keep up with the rapid increase in population. Sago is a staple food for the people of East Halmahera Regency. If sago is developed it can become an alternative food that can be used for local food security. The aim of this research is to design a Research and Development Center for Sago Food Crops in Maba City with a Tropical Architecture approach. The research method used is data collection on the existing conditions of the design location, with tropical climate data analysis methods using the Andrewmash and Ventusky websites. The tropical architectural approach was chosen according to the climatic conditions of the design location. The results of the analysis show that the mass of the building which is made to extend across the north-south collar has low exposure to the sun in certain months, while the mass of the building which is made to face the east-west collar has a high intensity of exposure to the sun in certain months, so that the use of shading in the principles of tropical architecture can block the rays solar heat entering the building.

Keywords: *Research Center, Food, Sago, Tropical Architecture, Climate*