

# **Kajian Desain Pengembangan Komoditas Tanaman Pangan Unggulan Spesifik Kawasan Transmigrasi Ponu, Timor Tengah Utara, Nusa Tenggara Timur**

## **(Design Study for the Development of Priority Food Crop Commodities in the Ponu Transmigration Area, North Central Timor, East Nusa Tenggara)**

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### **ABSTRAK**

Penelitian ini bertujuan menganalisis potensi, permasalahan, dan arah pengembangan komoditas tanaman pangan unggulan di Kawasan Transmigrasi Ponu, Kabupaten Timor Tengah Utara, Nusa Tenggara Timur. Kajian dilakukan dengan pendekatan campuran melalui wawancara terstruktur, pengamatan ekologi tanah, Focus Group Discussion berbasis Appreciative Inquiry, serta pemetaan partisipatif pekarangan. Metode ini digunakan untuk memperoleh gambaran menyeluruh terkait aspek biofisik, agroekologi, kondisi sosial ekonomi, dan dinamika pasar di wilayah kajian. Hasil penelitian menunjukkan bahwa padi dan jagung merupakan komoditas utama yang menopang ketahanan pangan dan pendapatan rumah tangga, namun produktivitasnya masih rendah akibat keterbatasan air, kualitas tanah yang menurun, minimnya sarana dan prasarana pertanian, serta lemahnya kelembagaan ekonomi lokal. Kondisi agroklimat yang tergolong kering dengan musim hujan singkat menyebabkan pola tanam sangat bergantung pada curah hujan dan umumnya hanya memungkinkan satu musim tanam padi per tahun. Meskipun demikian, peluang pasar bagi komoditas padi cukup menjanjikan, ditandai oleh tingginya permintaan lokal dan defisit pasokan di tingkat kabupaten. Analisis kelayakan ekonomi mengindikasikan bahwa penyediaan akses air melalui embung, sumur bor, atau irigasi sederhana dapat meningkatkan frekuensi tanam serta memberikan dampak positif terhadap kesejahteraan petani.

Rekomendasi strategis yang dihasilkan mencakup penguatan sistem air terpadu, peningkatan mekanisasi, perbaikan infrastruktur pertanian, serta revitalisasi kelembagaan desa. Selain itu, pembentukan *Collaborative Innovation Center* (CIC) diusulkan sebagai wahana kolaborasi lintas pihak untuk penelitian terapan, pelatihan petani, serta inovasi teknologi berbasis komoditas unggulan. CIC diharapkan menjadi pusat integrasi pengetahuan dan pengembangan kapasitas masyarakat, sehingga mampu mendorong transformasi ekonomi kawasan secara berkelanjutan.

Kata kunci: agroekologi, collaborative innovation center, kelayakan ekonomi, komoditas unggulan, pasar

### **ABSTRACT**

This study aims to analyze the potential, challenges, and development direction of priority food crop commodities in the Ponu Transmigration Area, North Central Timor Regency, East Nusa Tenggara. The assessment employed a mixed-method approach, including structured interviews, soil ecology observations, Focus Group Discussions using the Appreciative Inquiry framework, and participatory homestead mapping. These methods were used to obtain a comprehensive understanding of the biophysical conditions, agroecology, socio-economic structure, and market dynamics within the study area. The results indicate that rice and maize serve as the main commodities supporting household food security and income; however, their productivity remains low due to limited water availability, declining soil quality, inadequate agricultural facilities, and weak local economic institutions. The area's dry agroclimatic conditions, characterized by a short rainy season, make cultivation highly dependent on rainfall and generally allow only one rice planting season per year. Nevertheless, market opportunities for rice remain promising, as shown by high local demand and a supply deficit at the district level. Economic feasibility analysis further suggests that improved access to water through reservoirs, bore wells, or simple irrigation systems can increase cropping frequency and positively affect farmers' welfare. Strategic recommendations include strengthening integrated water management systems, enhancing mechanization, improving agricultural infrastructure, and revitalizing village-level institutions. In addition, the establishment of a Collaborative Innovation Center (CIC) is proposed as a multi-stakeholder platform for applied research, farmer training, and technological innovation related to key commodities. The CIC is expected to function as a hub for knowledge integration and capacity development, thereby supporting sustainable economic transformation in the region.

Keywords: agroecology, economic feasibility, collaborative innovation center, market, priority commodities