

ABSTRACT

Tertiary irrigation networks play an important role in supporting water distribution to agricultural land. This study aims to review the condition and evaluate the function of the tertiary irrigation network of the Lakuak Sepakat Farmers' Group in the Kayu Kundua Irrigation Area, Bayua Village, Tanjung Raya District, Agam Regency. The study employed field observation, direct measurements, documentation, and interviews with 16 respondents consisting of 1 group leader and 15 farmers. The physical condition of the irrigation network was observed at 17 observation stations (STA), covering channel dimensions, lining conditions, sedimentation, vegetation, and overall channel conditions. The performance evaluation of the irrigation network referred to Permen PUPR Number 12/PRT/M/2015, by assessing Component I, Component III, and Component VI. The results showed that the physical condition of the channel was generally still functioning well. Defects found included vegetation, sedimentation at STA 5–8, and lining cracks at STA 7 and STA 11. No failures in the form of breaches, leakage, or landslides were found. The IKSI assessment resulted in a weighted score of 46.73 out of a maximum score of 62, with an achievement percentage of 71.9%, categorized as moderate. Recommendations include repairing lining cracks at STA 7 and STA 11, routine maintenance through vegetation and sediment removal, and improving farmers' group management. Overall, the tertiary irrigation network is still capable of distributing water by gravity; however, continuous maintenance and management improvements are required.

Keywords: Tertiary irrigation network, physical condition, network function, evaluation, IKSI based on the Permen PUPR Number 12/PRT/M/2015

ABSTRAK

Jaringan irigasi tersier merupakan bagian penting dalam mendukung distribusi air ke lahan pertanian. Penelitian ini bertujuan untuk meninjau kondisi dan mengevaluasi fungsi jaringan irigasi tersier Kelompok Tani Lakuak Sepakat pada Daerah Irigasi Kayu Kundua, Nagari Bayua, Kecamatan Tanjung Raya, Kabupaten Agam. Penelitian menggunakan metode observasi lapangan, pengukuran langsung, dokumentasi, dan wawancara terhadap 16 responden yang terdiri dari 1 ketua dan 15 anggota kelompok tani. Kondisi fisik jaringan diamati pada 17 Stasiun Pengamatan (STA), meliputi dimensi saluran, kondisi lining, sedimentasi, vegetasi, dan kondisi saluran. Evaluasi kinerja jaringan mengacu pada Permen PUPR Nomor 12 Tahun 2015 dengan menilai Komponen I, Komponen III, serta Komponen VI. Hasil penelitian menunjukkan bahwa kondisi fisik saluran secara umum masih berfungsi dengan baik. Defect yang ditemukan berupa vegetasi, sedimentasi pada STA 5–8, dan retakan lining pada STA 7 dan STA 11. Tidak ditemukan failure berupa bobolan, kebocoran, maupun longsor. Hasil penilaian IKSI memperoleh nilai terbobot 46,73 dari nilai maksimum 62, dengan persentase capaian 71,9% dan termasuk kategori sedang. Rekomendasi diarahkan pada perbaikan retakan lining pada STA 7 dan STA 11, pemeliharaan rutin berupa pembersihan vegetasi dan sedimentasi, serta peningkatan pengelolaan kelompok tani. Secara keseluruhan, jaringan irigasi tersier masih mampu mendistribusikan air secara gravitasi, namun diperlukan pemeliharaan dan peningkatan pengelolaan secara berkelanjutan.

Kata kunci: Jaringan irigasi tersier, kondisi fisik, fungsi jaringan, evaluasi, IKSI Permen PUPR Nomor 12/PRT/M/2015.