

ABSTRAK

Permasalahan yang terjadi pada kinerja sistem irigasi yaitu kerusakan pada prasarana fisik yang terjadi disebabkan karena banjir dan sedimentasi yang tinggi, produktivitas padi yang menurun, alat dasar untuk pemeliharaan rutin belum sesuai kebutuhan, jumlah Petugas Pintu Air (PPA) yang tidak mencukupi, kondisi peta daerah irigasi (DI), peta wilayah kerja, peta skema jaringan tidak lengkap dan tidak sesuai dengan kondisi lapangan, kurangnya partisipasi Perkumpulan Petani Pengguna Air (P3A) dalam pelaksanaan pekerjaan pemeliharaan. Berdasarkan Peraturan Menteri Pekerjaan Umum dan Perumahan Rakyat (Permen PUPR) No.12/PRT/M/2015 penilaian kinerja sistem irigasi dilakukan dengan enam parameter yaitu prasarana fisik, produktivitas tanam, sarana penunjang, organisasi personalia, dokumentasi dan P3A. Dana Alokasi Khusus (DAK) yang terbatas mengakibatkan pelaksanaan rehabilitasi pada daerah irigasi harus dilakukan secara bertahap dan berkelanjutan, sehingga diperlukan adanya skala prioritas rehabilitasi daerah irigasi.

Penentuan prioritas rehabilitasi digunakan metode *Elimination Et Choix Traduisant la Realite* (ELECTRE) dan *Analytical Hierarchy Process* (AHP). ELECTRE digunakan untuk menyaring (*screening*) 15 (lima belas) DI sehingga diperoleh 4 (empat) DI yang dominan. AHP digunakan untuk menentukan urutan prioritas rehabilitasi dari 4 (empat) DI yang terseleksi. Kriteria yang digunakan dalam metode ELECTRE berdasarkan Permen PU No. 39/PRT/M/2006 yaitu kondisi jaringan, ketersediaan air, luas areal, intensitas tanam, produksi, biaya operasi dan pemeliharaan (OP).

Hasil analisis menunjukkan bahwa sistem irigasi yang mempunyai kinerja baik yaitu DI Toili. Kinerja kurang yaitu DI Moilong, DI Puna Kiri, DI Warulamala, DI Bakung, DI Karaopa, DI Ungkaya, DI Saroso, D. Tolisu, DI. Bunta dan DI Tambayoli. Kinerja jelek adalah DI Gintu, DI Dongin Pandanwangi, DI Karongkasa dan DI Bella. Hasil analisis urutan prioritas rehabilitasi DI adalah DI Karongkasa, DI. Dongin Pandanwangi, DI. Moilong dan DI. Tolisu. Peningkatkan kinerja DI yang direkomendasikan adalah perbaikan jaringan irigasi, peningkatan produksi padi, alokasi biaya OP sesuai kebutuhan, peningkatan partisipasi P3A dalam pengelolaan jaringan irigasi.

Kata kunci: daerah irigasi, kinerja irigasi, *ELECTRE*, *AHP*, prioritas rehabilitasi

ABSTRACT

Common problems that occur in the irrigation system are physical infrastructure damages caused by flooding, high sedimentation, decreased rice productivity, and essential tools for routine maintenance that are not yet by needs. Other problems are the inadequate number of sluice gate attendant, irrigation area map conditions, work area maps, incomplete and unsuitable network scheme maps, and lack of participation of water user farmer associations in conducting maintenance. Based on the Minister of Public Works and Public Housing Regulation No.12/PRT/M/2015, the irrigation system performance is evaluated by six parameters: physical infrastructure, planting productivity, supporting facilities, personnel organizations, documentation, and water user farmer associations. Limited special allocation funds result in the implementation of rehabilitation in irrigation areas to be carried out in stages and a sustainable manner, so that priority scale rehabilitation of irrigation areas is needed.

The *Elimination Et Choix Traduisant la Realite* (ELECTRE) and Analytical Hierarchy Process (AHP) methods are used to determine the rehabilitation priorities. The ELECTRE method can filter out 15 irrigation areas to find the four most dominant areas. Meanwhile, the AHP method can determine the priority order of rehabilitation of the four selected irrigation areas. The input criteria for the ELECTRE method obtained from the Minister of Public Works Regulation No.39/PRT/M/2006, namely network conditions, water availability, area size, cropping intensity, production, operating costs, and maintenance.

The results of the analysis revealed that the irrigation system that had excellent performance was the Toili irrigation area. Meanwhile, the irrigation area of Moilong, Puna Kiri, Warulamala, Bakung, Karaopa, Ungkaya, Saroso, Tolisu, Bunta, and Tambayoli categorized as poor performance. Other than those, irrigation areas with inferior performance are Gintu, Dongin Pandanwangi, Karongkasa, and Bella. Furthermore, the irrigation areas that need to prioritize for rehabilitation are the Karongkasa, Dongin Pandanwangi, Moilong, and Tolisu areas. This study recommends improving irrigation networks, increasing rice production, allocating operational and maintenance costs as needed, and increasing the participation of water user farmer associations in managing irrigation networks.

Keywords: irrigation area, irrigation performance, ELECTRE, AHP rehabilitation priority