

RINGKASAN

Modernisasi irigasi merupakan proses adaptasi sistem irigasi terhadap perubahan dengan tujuan meningkatkan kinerja sistem irigasi dari aspek manajemen, metodologi, dan komponen sistem. Modernisasi irigasi di Indonesia dilakukan dengan pendekatan lima pilar irigasi yaitu ketersediaan air, sarana prasarana irigasi, institusi/kelembagaan, sistem pengelola, dan sumber daya manusia. Modernisasi dapat diimplementasikan apabila nilai Indeks Kinerja Modernisasi Irigasi (IKMI) pada suatu Daerah irigasi (DI) minimal 80. Nilai IKMI merupakan nilai kesiapan suatu Daerah Irigasi (DI) berdasarkan pada lima pilar modernisasi irigasi. Tujuan dari penelitian ini adalah mengetahui kesiapan modernisasi irigasi pada dua kewenangan DI yang berbeda dengan menggunakan pendekatan *Analytical Hierarchy Process* (AHP). Penelitian dilaksanakan di dua DI, yaitu DI Serayu (luas 20.795 ha; kewenangan pemerintah pusat) dan DI Karangnangka (390,8 ha; kewenangan pemerintah Kabupaten Banyumas). Pengambilan data dilakukan selama 4 bulan (April-Juli 2019). Berdasarkan nilai IKMI dari dua kewenangan DI, didapatkan bahwa DI Serayu memiliki kesiapan implementasi modernisasi irigasi lebih baik (rerata ~ 79.2) daripada DI Karangnangka (rerata ~51). Perhatian pada aspek sistem pengelolaan (0,221) perlu diperhatikan sebelum implementasi modernisasi di DI Serayu sedangkan aspek peningkatan sarana prasarana menjadi faktor penting di DI Karangnangka (0,261). Perbedaan tingkat kesiapan tersebut dimungkinkan karena aspek faktor sumber daya manusia, luas areal dan kekuatan institusi. Tantangan modernisasi irigasi pada perbedaan sistem pengelolaan adalah fleksibilitas dan adaptasi terhadap keragaman suatu DI.

SUMMARY

Irrigation modernization is a process of adaptation of irrigation systems with the aim to improving the performance of irrigation systems of management, methodology, and system components. Irrigation modernization in Indonesia using the five-pillar irrigation approach, namely the availability of water, infrastructure, institutions, management systems, and human resources. Modernization can be implemented if the value of the Irrigation Modernization Performance Index (IKMI) in an Irrigation Area (DI) is at least 80. IKMI is the value of readiness of an Irrigation Area (DI) based on the five pillars of irrigation modernization. The purpose of this research is to determine the readiness of irrigation modernization in two different irrigation area authorities by using the Analytical Hierarchy Process (AHP) method. The research was held in two irrigation area, namely DI Serayu (area of 20,795 ha; authority of the central government) and DI Karangnangka (390.8 ha; authority of the Banyumas Regency government). Data collection is carried out for 4 months (April-July 2019). Based on the IKMI values from the two DI authorities, it was found that DI Serayu had better readiness to implement irrigation modernization (average ~ 79.2) than DI Karangnangka (average ~ 51). Aspects of the management system (0.221) needs to be considered before the implementation of modernization in DI Serayu while the aspect of improving infrastructure is an important factor in DI Karangnangka (0.261). The different levels of readiness are possible due to aspects of human resources, area and institutional strength. The challenge of irrigation modernization on different management systems is flexibility and adaptation of the diversity of an irrigation area.