Abstract

DI. Krembung Brantas Delta Secondary Channel is located in Sidoarjo East Java, and has an area of 886 ha. Early planting in DI. Brantas Delta Secondary Channels Krembung starting from early November to the type of rice, and sugar cane crops. However, not all areas can be cultivated to its full potential. Damage to irrigation channel and building support, equitable distribution of water is less and less cropping pattern setting up a major factor. Thus, not all agricultural land in the DI. Krembung Brantas Delta Secondary Channels can be planted.

These problems, it is necessary operational and maintenance on the DI. Krembung Brantas Delta Secondary Channels. To increase the cropping pattern to the existing intake discharge, changes in cropping pattern should be done by calculating the water requirements of each crop and acreage to the calculation of Climatology and FPR (Relative Crop Factor), as well as the need for proper maintenance and repairs. So that the crop water requirements can be fulfilled optimally. Maintenance can be done by normalizing the channel and supporting improvements to the building.

As a measure that the project is feasible or not, need to be
taken into account the BCR (Benefit Cost Ratio), which must be
greater than one (BCR > 1). From the calculation of BCR didpat
two values, namely that the existing BCR and BCR reached 1.44
with the plan value of 1.54. Of operation and maintenance
planning DI, Brantas Delta Secondary Channels Krembung
Sidoarjo regency, is expected to increase cropping intensity and
crop production in East Java, particularly Sidoarjo regency.