ABSTRACT

Irrigation area Sampean Baru located in watershed Sampean, irrigation area Sampean Baru gets water from weir of Sampean Baru that have a functional area ± 7,973 ha (2,136 ha in area Bondowoso and 5,837 ha in area Situbondo) and irrigation area Sampean Lama (± 11,500 ha). Water availability in Sampean Baru weir throughout the year have not been able to meet the water needs for irrigation area Sampean Baru when simultaneous distribution of water, so in need of water sharing arrangements are effective and efficient and can be accepted by all farmers both Bondowoso area and Situbondo area. Thus the potential for conflict can be reduced or overcome.

Of the problems described above, this research is intended to optimize the distribution of water to the rice fields to group by with rules region government administration (rice fields area in District Bondowoso and the area in District Situbondo), and secondly to classify rice acreage with Operation and Maintenance rules.

Of the two ways mentioned above distribution of water obtained for sharing water with operation and maintenance rules provide sufficient water throughout the year, whereas the distribution of water by region of government administration indicates the presence of sufficient water for Bondowoso area but for in Situbondo area showed deficits (lack of) water in each growing season (Growing Season I, Growing Season II, and Growing Season III).

Keywords : Irrigation area Sampean Baru, Optimization, Water Distribution