

**EVALUATION STUDY OF MICROHYDRO POWER PLANT (MHP) IN
BLAWAN COFFEE FACTORY BONDOWOSO REGENCY**

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ABSTRACT

The Blawan Microhydro Power Plant (MHP) was built in 2004 and started operating in 2005 by utilizing the potential of water resources in the Blawan river, with a generated power of 2x100kW. The lack of attention and experience from related parties regarding maintenance and repair of MHP components has resulted in the current decline in MHP performance. This causes a reduction in the power generated by the Blawan MHP. There are several components of the MHP that experience problems, such as the turbine which often suffers damage and errors in the control panel which caused the MHP Blawan to temporarily stop operating. The discharge at the Blawan MHP during the rainy season is around 4.737 m³/s and during the rainy season it can reach 8-15 m³/s. The overall performance of the Blawan MHP is currently quite good. This is based on the power efficiency which is only around 70.83% of the total potential power in the Blawan river flow of 24,99 kW. The current amount of power that the Blawan MHP can produce is around 17kW to 33kW/day while during the harvest season the Blawan MHP is capable of producing 80kW/day.

Keyword: MHP, power, performance