

The Effect of Agriculture and Farming Activities on Water Quality as A Natural Tourism Srikeminut in Sriharjo Village Imogiri District Bantul

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ABSTRACT

Rivers containing farming waste and residual hydrolysis of urea fertilizer can cause a decrease in water quality. This research was conducted to determine the effect of agricultural and farming activities on water quality and pollution levels in the Srikeminut Tourism Village. The aim of this research is to assess the water quality of tourism facilities based on Class II Quality Standards, referring to Government Regulation No. 82 of 2001 concerning Water Quality Management and Water Pollution Control and to determine the level of pollution based on the calculation of the Pollutant Index (PI), referring to the Decree of Minister of Environment No. 115 of 2003. The research was conducted in January 2024 until Juli 2025, using a survey method to determine the location. River water samples were taken using the composite place sample method at five places named samples TS1, TS2, TS3, TS4 dan TS5. Water samples were taken from the Oya River directly based on the direction of flow. Parameters tested include temperature, dissolved residue (TDS), suspended residue (TSS), pH, BOD, COD, total phosphate, Nitrate (NO_3), Nitrite (NO_2), H_2S , (MBAS) detergent and Coliform bacteria. Result from the samples showed that H_2S and (MBAS) detergent parameters exceeded the quality standards. H_2S value were: TS1 ($0,021 \text{ mg/L}$), TS2 ($0,018 \text{ mg/L}$), TS3 ($0,025 \text{ mg/L}$), TS4 ($0,018$) dan TS5 ($0,022 \text{ mg/L}$) while the standard for Class II water quality is $0,002 \text{ mg/L}$. MBAS detergent values were: TS1 ($0,413 \text{ mg/L}$), TS2 ($0,399 \text{ mg/L}$), TS3 ($0,548 \text{ mg/L}$), TS4 ($0,503 \text{ mg/L}$), and TS5 ($0,303 \text{ mg/L}$), while the standard is $0,001 \text{ mg/L}$. based on the calculation of the Pollution Index from the five samples along the Srikeminut Tourism stream, the water quality was lightly polluted category.

Keywords: Water quality, Oya River, Srikeminut Tourism Village, Sriharjo Bantul