EVALUATION OF VILLAGERS ACTIVITY ALONG TUARAN RIVER TOWARDS PRESERVING WATER QUALITY

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TABLE OF CONTENT

ABSTRACT

EVALUATION OF VILLAGERS ACTIVITY ALONG TUARAN RIVER TOWARDS PRESERVING WATER QUALITY

All living organisms that live on the earth needs water because it is essential to the all living things including human. The quality of water can be maintained by conserving and preserving of water. To protect the water quality especially in Sabah, the villagers living closed to the river need play an important role in maintaining the quality of river water. Thus, this study focuses on the evaluation of villager's activities in preserving the water quality in Tuaran, Kota Kinabalu. Water sample from five stations along Tuaran River were taken and analyzed. Dissolved oxygen, Temperature and pH were analyzed ex-situ by using DO meter YSI 550A model and pH meter. While, phosphate and nitrate was analyzed in-situ by using DR2800 spectrophotometer. Water quality sub-index of each station was calculated by using water quality index ($WQI_{Sub\text{-}Index}$) formula as recommended by Srivastava (2014). Set of questionnaires were generated based on the Theory of Planned Behaviors (TPB) with variables which is attitude, subjective norm, and perceived behavior control. The questionnaire was distributed to 5 villages that has been selected at lower region of along Tuaran River. The data gathered from questionnaires were analyzed using IBM SPSS version 23. From the analysis the water quality level of the Tuaran River is 61.85 at medium range and classified as slightly polluted. It show that, the attitude, subjective norm, perceived behavior control has positive linear relationship with behavioral intention, which means these three variable influence the Villagers's behavioral intention in preserving water quality the Tuaran River. Besides, the villagers's behavioral intention also have positive correlation which is ($r = 0.821$ and $\alpha = 0.089$) with the water quality index of Tuaran River, which means the water quality will affected by daily activities of villagers along Tuaran River. The quality of water will be polluted if the activity of villages is uncontrolled.