THE IMPLEMENTATION OF INTEGRATED RIVER BASIN MANAGEMENT TOWARD PRESERVING WATER QUALITY IN INANAM LIKAS-RIVER BASIN, KOTA KINABALU, SABAH.

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Final Year Project Report Submitted in Partial Fulfilment of the Requirements for the Degree of Bachelor of Science (Hons.) Biology in the Faculty of Applied Science Universiti Teknologi MARA

JANUARY 2018

ACKNOWLEDGEMENTS

All praises to God for all His blessing, strength, health and wellbeing that were necessary for me throughout completing this book.

I take this opportunity to express my sincere thanks to my supervisor, Mr. Ajimi Jawan, and my co-supervisor, Dr. Viduriati Sumin, I am very thankful for their immense knowledge, patience, sincere and valuable guidance and encouragement throughout the experimental and field works, and the thesis writing. I would also want to sincere thank my second reader, Mr. Abdul Manap Mahmud.

I want to express my gratitude to my parents for the emotional support, attention and encouragement throughout completing this book, without them completing this book is impossible.

Last but not least, I want to thank my friends Mohd Azrin, Clodia Geofery, Rani Goundilang, Nur Faezah Ibadat, and Serafina Banyi as they willingly helped me in the sampling and distributing questionnaires.

Erica Jaludin

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ABSTRACT

THE IMPLEMENTATION OF INTEGRATED RIVER BASIN MANAGEMENT TOWARD PRESERVING THE WATER QUALITY LEVEL IN INANAM-LIKAS RIVER BASIN

Rivers serve as habitat and resources for many living things including human. Water quality is crucial to be maintained and preserved to ensure high quality of life and at the same time conserving aquatic life. To protect the water quality in Sabah, there are many agencies involved such as Jabatan Perlindungan Alam Sekitar (JPAS), Jabatan Pengairan dan Saliran (JPS) and Dewan Bandaraya Kota Kinabalu (DBKK). This study focuses on the Decision Makers' (DMs) behavioural intention of implementing the Integrated River Basin Management (IRBM) toward preserving the water quality in Kota Kinabalu City, by using Inanam-Likas River Basin (ILRB) as the study case. Water samples from six stations along the ILRB were taken and analysed along the ILRB. pH, temperature, and DO were analysed ex-situ using DOmeter, while phosphorus was analysed in-situ using spectrophotometer DR2800. Water quality level of ILRB were calculated using quality index with missing parameters (WQI_{mp}) formula as recommended by Kumar and Srivastava (2014). Set of questionnaires were generated based on the Theory of Planned Behaviour, elements namely attitude, subjective norms (SN), and perceived behavioural control (PBC). The questionnaires were distributed to several agencies, in this study, the questionnaires were distributed to 4 agencies which are, DBKK, JPS, JKAS, and Industries. The data gathered from the questionnaires were analysed using IBM SPSS Version 23. From the analysis, the correlation of the attitude, subjective norms, and perceived behavioural control with behavioural intention of the DMs, and the correlation between behavioural intention of the DMs with the current water quality level were computed. Through this study it is found that the water quality level of the ILRB is in the Medium range, which is ranked as grad C. The attitude; $r = 0.395$, $\alpha = 0.01$, SN; $r = 0.437$, $\alpha = 0.01$, and PBC; $r = 0.562$, $\alpha = 0.01$ has positive linear relationship with the behavioural intention, which means that these three elements influenced the Decision Makers' behavioural intention in implementing the IRBM. In the other hand, it is found that there is no statistical significance correlation between the behavioural intention of the Decision Makers in implementing the IRBM toward the current water quality level in ILRB, which means that even though they had already implemented the IRBM, it does not influence the water quality level in ILRB.