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ESSENTIAL SYSTEM: Professor Lau Seng who teaches Environmental Chemistry at Universiti Malaysia Sarawak (UNIMAS) notes that Sarawak River is highly polluted with biological organisms largely from household waste. He says the centralised sewerage system is essential to save our waterways.

Wastewater threatens waterfront tourism

THE role of the historical Sarawak River will be further cemented as a tourism jewel of the city centre of Kuching if things go according to the vision of State Tourism Minister Datuk Amar Abang Johari Tun Openg.

The Minister had big plans — going back a few years — for the iconic river as a key drawcard for tourists to Kuching as well as an important public transportation hub.

Pledging to fashion the Sarawak River into Kuching's own little Venice, Abang Johari who is also Satok assemblyman, has been instrumental in getting a number of upgrading and beautification projects along the waterfront off the ground.

These include a fleet of water taxis to ply the river with about half a dozen jetties and pontoons being built to cater to the additional services.

Concurrently, boat builders in Sibul are fabricating a catamaran which may be used to link major hotels in the city center to the Borneo Convention Center Kuching (BCCCK).

"Our MICE participants or business travellers can have breakfast on their way to the convention centre onboard the catamaran. In Hong Kong, that's what they do," Abang Johari told a press conference recently.

But with so much emphasis on the river as a tourism centrepiece, its water quality has come under the microscope, causing concern for organisers of river-based events such as the recent annual Sarawak Regatta.

Headings on public panels being displayed during the recent Government Transformation Programme 2.0 Open Day reflected as much: Wastewater pollution causing deterioration of water quality in Greater Kuching; The City's rivers have become an open sewer and Currently Sungai Sarawak is Class III which is not suitable for recreational use.

The volume of wastewater pouring into the urban waterways has increased in tandem with Kuching city's burgeoning population. Unsurprisingly, the cleanliness of the Sarawak River has come under close scrutiny with both foreigners and locals alike commenting on its soup-like appearance, oily surface and odours.

Professor Lau Seng who teaches Environmental Chemistry at Universiti Malaysia Sarawak (UNIMAS) questions the wisdom of conducting water-based sports activities in the Sarawak River due to the rising levels of water pollution.

"Sarawak River is highly polluted with biological organisms. The level of E. coli is high," he pointed out.



TOURISM CENTREPIECE: The Sarawak River at the famous Kuching Waterfront is set to be enhanced as the centrepiece of the city's tourism industry with plans for water taxis, more jetties and even a catamaran. The river is expected to get a new lease of life in the next few years as the centralised sewerage system is commissioned.

Household waste

According to Lau, the biggest source of pollution is household waste. He said as Sarawak is not industrialised, chemical pollutants are not the main source of water pollution yet.

"Settlement is the main problem. Sure, at home, you have septic tanks, but the tanks only work well when desludging is carried out often, and even then, only about 30 per cent or 40 per cent of the pollution is removed," the prof observed.

"The rest goes into the river. Discharge from rural households is even worse because there's no treatment."

Basically, there are two types of waste water discharge from households: greywater and blackwater.

Greywater is the putrid mix of wastewater – everything from food washed down sinks to soapy effluents – from kitchens, bathrooms and wash areas which flow untreated directly into rivers and waterways.

Blackwater comes from waste generated from toilets. It is partially treated within septic tanks but conventional methods only removes 40 per cent of pollutants before it is also discharged into rivers and waterways.

Once greywater and blackwater reach our rivers and waterways, including the Sarawak River, it creates favourable conditions for bacteria such as E.coli (a type of bacteria which can lead to severe, and sometimes fatal food poisoning) to survive. Not only that, these rivers will become increasingly inhospitable to marine life as high bacteria content in the water causes the content of dissolved oxygen essential to their propagation to decrease.

The Sewerage Services Department has raised concern that at least two of Kuching city's smaller rivers – Sungai Padungan and Sungai Bintangor – are severely polluted.

Professor Lau would add Sungai Tabuan to that list as well.

Remedial measure

So what can be done to avert this looming disaster?

The answer can be found in the Kuching City Centralised Sewerage System (KCCSS) project which the government hopes will be able to drastically reduce, if not eliminate, the growing volume of untreated greywater and blackwater being discharged into our waterways before it reaches a critical level.

The project, the largest of its kind in the state, is under the auspices of the Sewerage Services Department (SSD) set up in October 2007 to tackle the issue of untreated sewerage.

The department is well aware of the challenges it faces. The RM530 million first phase (Zone 1 Package 1) of the KCCSS is already well underway.

For this phase, densely populated areas of the city from Satok, Wisma Saberkas to Padungan are to be laid with a network of underground pipes by means of high-tech tunnel boring machines which will collect both blackwater and greywater and direct it to a sewerage treatment plant located in Petra Jaya through a gravity flow system.

On site, a multi-stage process will treat wastewater into clean discharge Standard A which can then be safely released into the Sarawak River.

SSD director Lau Hieng Ung considers the centralised sewerage system initiative a landmark project. After nearly four years of tunneling works, Phase 1 of the project is progressing well.

“It is hoped many severely polluted rivers like Sungai Pandungan and Sungai Bintangor will be rehabilitated and able to support more marine life soon,” Lau said.

The organisers of events such as the spectacular Sarawak Regatta will be certainly hoping the waterfront stretch of the Sarawak River will be able to benefit from the clean-up as properties get connected up to the centralised sewerage system.

It is expected that the paddlers in the coming years will be able to focus on the wonders of the gleaming new state legislative building, the richly historical Fort Margherita and the Astana rather than be concerned about the river water quality.

The information and photos for this article were prepared by Kumpulan-Nishimatsu-Hock Seng Lee Consortium, the contractor for Kuching Centralised Sewerage System project.

Source : [theborneopost](http://theborneopost.com)