

Nationwide efforts needed to end river pollution

Waterways still being used as dumping grounds for waste, says expert

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PETALING JAYA: Malaysia must adopt a whole-of-nation approach to achieve zero river pollution, as the country has no option but to safeguard its waterways from worsening contamination.

Experts told *theSun* that rivers remain at risk without stronger protection.

This follows Deputy Prime Minister Datuk Seri Fadillah Yusof's disclosure that 27 major rivers nationwide were found polluted in 2024, according to Environment Department monitoring data.

Key pollutants include biochemical oxygen demand, chemical oxygen demand, ammonia nitrogen, total suspended solids and dissolved oxygen.

Universiti Putra Malaysia Faculty of Forestry and Environment senior lecturer Dr Mohd Yusoff Ishak said achieving zero river pollution is

not just aspirational but necessary.

"We do not have any other option than to go for zero river pollution. What we should do now is to adopt a whole-of-nation approach to ensure that all stakeholders, especially major polluters, are involved in transforming the water sector into an economic resource as part of our natural capital."

Yusoff said the challenge lies in adapting those solutions into Malaysia's socioeconomic and legislative context.

"Malaysia currently (uses) the Water Quality Index, which uses selected parameters to classify rivers into categories based on usage and serves as an early indicator of pollution levels."

"Yet public awareness remains a challenge, as it is difficult to say Malaysians are sufficiently conscious about reducing household pollution, with rivers still being used as dumping grounds for various types of waste."

He added that household waste is not the only contributor, pointing to industrial and land-based pollution as significant sources.

Pertubuhan Alam Sekitar Sejahtera Malaysia president Mohd Yusaimi Md Yusof said managing river pollution often happens only after problems occur, instead of addressing the root causes early.

He said limited manpower and technology, such as the lack of drones and CCTV for monitoring, also make enforcement difficult, although these solutions would require significant investment from local authorities.

"On enforcement, existing penalties under the Environmental Quality Act 1974 are too weak to deter polluters, particularly large companies," he said, adding that the overlapping jurisdictions between federal and state authorities, as well as multiple agencies, often slow enforcement.

He added that communities depending on rivers face growing health threats, as polluted waterways expose them to waterborne diseases such as cholera, typhoid and hepatitis A.

"Industries are also suffering, with toxins wiping out fish populations and threatening food security and fishermen's livelihoods."

"Water treatment plants face higher costs as more chemicals and energy are needed to clean raw water, expenses that eventually fall on consumers through higher water bills. In severe cases, plants are forced to shut down, disrupting supply."

Mohd Yusaimi highlighted a serious case, the Sungai Kim Kim incident in Johor, which

cost the government millions in clean-up efforts and left some victims with lifelong health complications.

He also said current strategies still rely on traditional "engineering fixes" such as concrete embankments, which may not fully address the impacts of climate change.

"Malaysia has introduced initiatives such as the Integrated River Basin Management and river rehabilitation programmes under the Natural Resources and Sustainability Ministry and the Department of Irrigation and Drainage. However, questions remain over whether these efforts are sufficiently climate-resilient."

"Plans also tend to neglect disaster risk reduction and climate resilience, while implementation remains uneven across states, often depending on funding and political will."

He recommended ecosystem-based solutions such as replanting riverbank trees, creating artificial wetlands and conserving rainforests to help strengthen flood and drought resilience.

"There is also a need for real-time monitoring, drone surveillance, improved weather forecasting, tougher penalties on polluters, industry contingency plans and closer federal-state cooperation for effective river management."