

Microbes doing a good job

KUALA LUMPUR: Who would have thought that the lowly microbe would be called upon to clean up our rivers? Well, that's the job the Perlis Drainage and Irrigation Department has given to the minute organisms.

And they have done a good job so far. The pollution level in Sungai Perlis has improved since the microbes were let loose in April.

The Perlis DID prefers to call this its Emas technology.

Emas, its river section deputy director Khairunisah Husain said, stood for Effective Micro-organism Activated Solution technology.

"It is easy and effective. The communities living next to the river can be supplied with the microbes and taught how to apply it to the river," she said.

However, she said, the process had to be maintained continuously and should be applied at the source of the pollutants to be more effective.

DID Perlis plans to set the little fellows loose at the landfill in Kuala Perlis so that they will eliminate the odour and turn the garbage into compost which can be used for agricultural purposes.

While agreeing that Emas was a good method, Universiti Malaya's Professor Dr P. Agamuthu noted that it was expensive.

"Where are we going to find the money to clean all our rivers?" asked Agamuthu,



The signboard is largely ignored by irresponsible people who have no qualms about dumping garbage on the banks of Sungai Semenyih.

who specialises in Solid and Hazardous Waste Management at the Institute of Biological Sciences in UM.

He said other cheaper, practical methods that were just as effective could be implemented.

One way is to ensure that new houses in Malaysia have a better drainage system to help reduce river pollution.

He said wastewater from kitchens of almost all households in Malaysia ended up in rivers.

"Every time you wash your dishes, the mixture of water and dishwashing liquid ends up in the river. Dishwashing liquid increases the pH level of the water," he added.

A high pH level may cause some organisms in the water, including fish, to die.

"In Japan," Agamuthu observed, "only rainwater ends up in the river".

Other wastewater from Japanese households ended up in the sewer, he said. That is why Japan's rivers are so clean.

Another system that could be implemented was measuring pollution standards using a quantitative system, said Agamuthu.

The method employed by the Department of Environment uses a qualitative measure.

Under the Environmental Quality Act 1974, DOE sets a

limit on the level of parameters such as biochemical oxygen demand (BOD) and chemical oxygen demand (COD) in the wastewater released by factories into the river. A high level of BODs and CODs indicate high pollution.

The problem with this method was that there was no limit to the volume of water released, said Agamuthu.

He suggested that there should be more centralised sewage systems.

Currently, these are only available in Taman Tun Dr Ismail and Pantai Dalam in Kuala Lumpur, with the largest in the country under construction in Penang.

MALAYSIA'S DIRTIEST RIVERS

- Sungai Juru, Penang
- Sungai Pinang, Penang
- Sungai Jejawi, Penang
- Sungai Buloh, Selangor
- Sungai Klang, Selangor
- Sungai Segget, Johor
- Sungai Kempas, Johor
- Sungai Danga, Johor
- Sungai Tukang Batu, Johor



RM5m given, but bill may exceed RM500m

KUALA LUMPUR: Having failed with the "Love Our River" campaign, the Drainage and Irrigation Department (DID) revamped it in 2002.

The new "One State, One River" programme required each state to adopt a river under the supervision of a state executive councillor.

DID river section director Cho Weng Keong said the strategy change was to ensure the participation of state departments. Cho said the DID had also set 2015 as the target date for all rivers in Malaysia to be clean.

"We realised that as the rivers were worsening, we had to concentrate on the 'One State, One River' campaign."

Though it was launched in 2002, the campaign only kicked off this year because of a lack of funding, he said.

Each state has been allocated RM5 million under the Ninth Malaysia Plan. But how much would it cost to clean up the rivers?

A DOE source said it was hard to give a ballpark figure. "Just a slight improvement to Sungai Melaka will cost RM500 million. It could take 10 years to clean Sungai Melaka alone."

On a more positive note, the DID is experimenting with technologies from overseas to clean up rivers. This includes methods successfully practised for over 20 years in Japan.

The department is also conducting awareness programmes for students and teachers at 10 schools in Selangor and Kedah.

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In Sungai Klang alone, at least 50,000 tonnes of waste were collected from the log booms.

Dr P. Agamuthu
Universiti Malaya



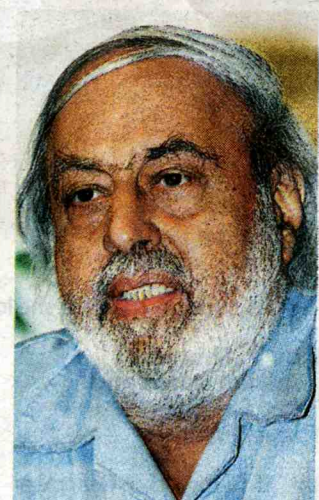
Let's put it this way. Without the campaign, the situation would have been worse.

Cho Weng Keong
DID river section director



The department had spent RM10 million during the campaign on 'site activities' which included landscaping.

Ahmad Darus
DID river section assistant director



The river (Sungai Klang) has become worse. If you ask me, the money for the campaign is literally going down the drain.

Gurmit Singh
Centre for Environment, Development and Technology Malaysia executive director