



Our dying rivers

Dirty and stinky:

Contract workers wading through the waters at the downstream of Batu River in Selangor to clear trash trapped at the log boom. – ROYCE TAN/The Star

Despite the 'Love Our River' campaigns, Malaysians continue to throw all sorts of trash – from sofas to voodoo dolls and even washing machines – into rivers. The rivers have become polluted, riverine life is under threat and experts have warned that the cost of cleaning up will skyrocket, along with water tariffs.

> See reports on Pages 6 and 8 by **MANJIT KAUR** and **ROYCE TAN**

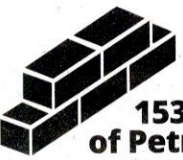
Rubbish lay waste to waterways

An average of 2,200 tonnes pollute rivers monthly despite campaigns

HOW MUCH IS 2,200 TONNES?



Equivalent to the weight of **314 male african elephants**



If 2,200 tonnes of bricks were to be stacked on top of each other, it would be

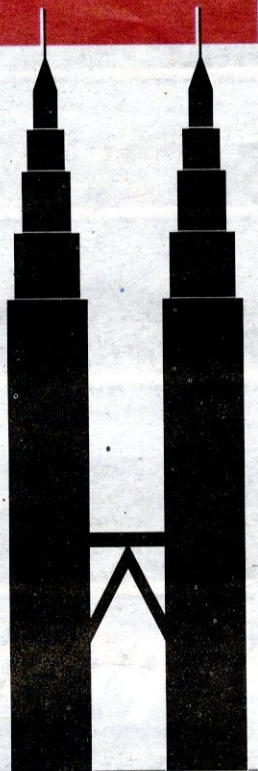
153 times the height of Petronas Twin Towers



Equivalent to the weight of **1,800 Proton Waja**

If 2,200 tonnes of Proton Waja were to be stacked on top of each other, it would be

seven times the height of Petronas Twin Towers



By **MANJIT KAUR**
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IPOH: Every second, someone is dumping rubbish into Malaysian waterways and an average of 2,200 tonnes of rubbish is being collected every month from traps built across rivers in the country.

In just the upper part of Sungai Klang, which includes Sungai Gombak and Sungai Batu, a total of 21 tonnes of rubbish is collected monthly.

The rubbish is collected from 11 trash screens built across rivers, and from 500 gross pollutant traps built in drains to prevent rubbish from flowing into rivers.

"This means that every day, people along the upper areas of Sungai Klang are throwing 700kg of rubbish into drains and rivers," said Malaysian Water Partnership (MyWP) vice-chairman Datuk Hanafi Mohamad Noor.

"Despite numerous programmes and campaigns by the authorities, including the 'Love Our River' campaign launched more than 10 years ago, not much progress has been achieved," he said in an interview.

"The campaign was to create public awareness and sensitivity

towards the need for cleaner rivers. Yet, the responsibility is always left to the authorities without much support from the people," he said.

Hanafi, who is a former DID River Basin Management Division director, said Sungai Klang was not the most polluted river but still significant as it flows into the Kuala Lumpur city centre.

Malaysians, he said, must understand that trash thrown onto roads or other public spaces would end up in the drains and rivers after the rain.

Hanafi said adequate funding for maintenance of drains and preservation of rivers had always been a problem.

The cleaning of rivers was not a one-off programme but should be carried out throughout the year, he said, adding that this meant that there was a need for an annual budget of about RM100mil yearly to clean the rivers in Malaysia.

As for the laws, he said they were adequate in dealing with litterbugs but there was a lack of enforcement.

"Singapore is seen to be successful in maintaining a cleaner environment, including the drains and rivers due to its strict enforcement

of laws," he said.

In Malaysia, he said 97% of water used for domestic, industrial and irrigation purposes came from surface water in rivers and reservoirs.

Hanafi cautioned that water supply to users would be affected if rivers were seriously polluted, since the upper section of intake points of water treatment plants, and operation for the plants would have to be closed then.

This, he said, had happened several times in Sungai Langat in Selangor when the river at the water supply intake points was found to be polluted with ammoniacal nitrogen.

"If more people realise that the water they are drinking comes from rivers, they may think twice before polluting it. The cost for water treatment can get really high. This could even lead to higher water tariffs," he added.

Hanafi said the amount of rubbish that ended up in rivers was actually higher because not all rivers were installed with rubbish traps or log booms.

This also excludes the garbage that is collected by local authorities from drains, he added.

Expert: Tackle pollution in drainage system first

PETALING JAYA: River pollution should be tackled upstream where the drains are, said Universiti Sains Malaysia (USM) River Engineering and Urban Drainage Research Centre director Prof Dr Nor Azazi Zakaria.

Dr Nor Azazi said it would be pointless cleaning rivers if drains flowing into them continued to be dirty.

"There needs to be a sustainable design to trap and collect rubbish from flowing downstream. Clean drains mean clean rivers.

"The Government has also spent so much to maintain our rivers and to collect rubbish. We need to re-look our enforcement measures to overcome this."

"If rubbish keeps being dumped into drains and rivers, it would affect a river's stability - the riverbed, river capacity and equilibrium would all be influenced adversely.

"Secondly, it will also affect water supply downstream and the aquatic life in the river," he said.

There needs to be a sustainable design to trap and collect rubbish from flowing downstream.

Prof Dr Nor Azazi Zakaria

Dr Nor Azazi said it was high time the Government seriously considered including the environment in the school curriculum, starting from the lower levels.

He said that awareness programmes such as the "Love Our River" campaign need to be run professionally to ensure they can be measured and improved on.

The "Love Our River" campaign is carried out by the Department of Irrigation and Drainage (DID) to encourage public awareness, empathy and care for rivers and



Disgusting sight: A large amount of rubbish trapped by the log boom in Sungai Pinang in Jalan Sungai, Penang. — CHIN CHENG YEANG/The Star

includes concerted efforts to clean up rivers nationwide.

It was launched in 1993 to educate the public on the importance of rivers and the environment while highlighting the critical state

of pollution of the rivers.

The Malaysia Environmental Quality Report 2014 showed that based on the 473 rivers monitored by the Department of Environment, 186 rivers (39%) were slightly pol-

luted and 43 rivers (9%) were polluted in 2014.

This is an increase of the 173 rivers (36.6%) slightly polluted and 25 polluted rivers (5.3%) the previous year.

Workers clear trash at log boom clad only in shorts

KUALA LUMPUR: Contract workers wade through the waters at the downstream of the Batu River to clear the trash trapped at the log boom clad only in shorts and boxers.

It does not seem possible that any aquatic life could survive in that murky water as the stench emanating would drive people away from the area instead of inviting them to jump in for a swim.

Rizal Shaari wore only a pair of boxers as he cleared the rubbish at the log boom before pushing it to the trash rake.

The 25-year-old contract worker said there was no need to wear clothes.

"With shirts on or not, the water will still touch our skin. We've never had any skin problem. Dirty or not, we're already used to this and this

job lets us put food on the table," said Rizal who has been clearing rubbish from the trap for two years.

His boss, Mokhtar Imam Yaisin, 65, who has the contract to clear the rubbish, said none of his workers had complained of any rash or skin complications.

"The river is dirty, of course. People dump food waste, faeces and other substances but my workers

are all right.

"They have gotten minor injuries at times, but only from moving tree branches and furniture that were also dumped into the rivers.

"Many people treat the river like a disposal site and this is very disappointing," he said, adding that refrigerators and cupboards were common finds.

Mokhtar added that there were

also a number items which looked like paraphernalia used by *bomoh* such as strange bottles and voodoo-looking dolls with sharp objects sticking out of them.

He claimed there were times when his workers opened such bottles, they would get an eerie feeling.

"At one time, smoke came out of the bottle and my worker almost fainted," said Mokhtar.

RUBBISH DUMPED IN OUR RIVER

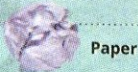
Estimated
decomposition
rates

2 - 5 WEEKS

Orange and banana peel



2 MONTHS



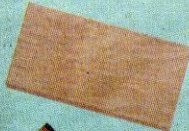
Paper

3 MONTHS

Waxed carton
boxes



1 - 3 YEARS



Plywood

1 - 5 YEARS



Cigarette
butt

Plastic
bag



10 - 20 YEARS



Aluminium
cans

80 - 200 YEARS



Plastic
bottle



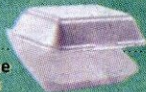
Disposable
diapers

450 YEARS



Glass
bottle

1 MILLION YEARS



Polystyrene
containers

NEVER

Plastic and polystyrene clogging up Klang River

Log booms also catching refrigerators and sofas

By **ROYCE TAN**

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KUALA LUMPUR: A horrendous stench greets those who go near the log boom at the downstream of Sungai Batu, one of the tributaries of the Klang River.

What's worse is the sight of the log boom where heaps of rubbish are collected, made up mainly of plastic bags and bottles and polystyrene containers.

A check by *The Star* recently found a kayak, motorcycle helmets, footballs, tree branches, tin cans and many others.

According to a spokesman from the Drainage and Irrigation Department's (DID) Klang River basin office, this was a common sight at the log boom.

"We have even found things like sofa sets, mattresses, refrigerators, washing machines and motorcycle frames.

"Many take the easy way out by dumping everything into rivers, even though they know very well that this will pollute our rivers.

"This log boom itself (in Batu River) traps more than a tonne of rubbish monthly. It's worse during the rainy season because more garbage gets washed into the rivers," he said.

A log boom is a barrier placed in a river

Many take the easy way out by dumping everything into rivers, even though they know very well that this will pollute our rivers.

Drainage and Irrigation Department
spokesman

that is designed to collect or contain floating garbage.

Last year, 205 tonnes of rubbish were collected just from the Klang River and its many tributaries - 75 tonnes from gross pollutant traps (GPT), 60 tonnes from log booms and trash rakes and 70 tonnes from manual cleaning.

From January to April this year, 85 tonnes of rubbish have already been collected.

The spokesman said river cleaning was done using various methods such as installation of river traps like gross pollutant traps, log booms and trash rake, manual cleaning and the use of manpower

and machineries.

He said GPTs were provided at the downstream end of drains or engineered waterways which discharge to sensitive rivers, water quality control ponds or urban lakes to reduce sediment load, litter, oil and chemicals.

"In the Klang Valley, the River of Life (RoL) project was initiated to transform the Klang-Gombak River corridor in Kuala Lumpur into a vibrant and liveable waterfront generating economic value.

"This project is focused on cleaning up and beautifying the polluted rivers in the Klang Valley.

"This initiative is led by DID with the support of 26 agencies across four ministries, including local authorities such as Selayang Municipal Council, Ampang Jaya Municipal Council and DBKL.

"DID has exceeded its target by completing the construction of 369 gross pollutant traps, log booms and trash rakes," said the spokesman.

He added that the Government had allocated RM3bil since 2011 for the project until 2020.

The Government had also allocated RM114mil to rehabilitate rivers under the "One State One River" programme from 2006 to 2007.