Rapid urbanisation leads to pollution

Oil sludge and chemicals from various businesses are clogging our drains and waterways

story by
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URBAN centres in Kuala Lumpur are contributing to the pollution of Sungai Kelang and its tributaries, according to data from the Drainage and Irrigation Department (DID).

Based on DID's inventory of pollution sources, collected after months of research for the River of Life (RoL) project from three local authorities — Kuala Lumpur City Hall (DBKL), Ampang Jaya Municipal Council (MPAJ) and Selayang Municipal Council (MPS) — the main sources include restaurants, mini markets, car workshops, carwash operators, laundrettes, food courts, construction sites and industries involved in iron, chemical and fertilisers.

These spots tend to have dirty drains overflowing with rubbish and clogged with gunk from oil and grease.

And according to DID, 30% of the pollutants are from sewage.

"This is not surprising as the rapid urbanisation of the Federal capital in the past two decades has given rise to a number of environmental problems, especially the way wastewater is collected, treated and disposed of," said DID River Basin Management Division director Mohd Said Dikon.

Areas such as Bukit Bintang, Brickfields, Kepong, Selayang and Gombak are just a few notable locations where the river tends to be very polluted.

The inventory also noted other hotspots are those with high concentration of businesses employing foreign workers.

Inventory of possible pollution sources

DATA COLLECTION	UNIT DBKL	MPAJ	MPS
Workshop	1,183	25	513
Restaurant / Food Court / Food Stall	4,380	664	506
Slaughter Spot and Livestock	4	0	3
Hotel / Resort	98	5	3
Night Market	81	3	12
Wet market	37	0	7
Morning Market	38	2	1
Petrol Station	75	11	7
Industries (iron, chemical, fertilizer, etc)	949	99	276
Hospital and Clinic	112	20	1
Nursery	25	3	4
Residential types	766	128	27
Squatters	75	6	4
Shopping Complex	96	5	1
Shop lot / mini market	20,923	5,089	4,928
Landfill / Construction	537	86	88
Carwash (Legal / illegal)	316	143	81
Laundary	320	152	67
Sewerage Treatment Plant	334	83	78
Water Plant	56	25	23
Recyclng Centre	4	1	0

Urban hot spots

DID's research correlates with the data from sewage management company Indah Water Konsortium Sdn Bhd (IWK) and waste management company Alam Flora Sdn Bhd.

Data from both companies points to migrant workers living and working in the hotspots as contributing to the pollution.

Indah Water revealed that it recorded 275 cases of sewage treatment plants (STP) receiving illegal discharge from the polluting industries mentioned.

"Out of 6,300 STPs nationwide, more than 200 have been identified as constantly receiving oil and grease, and these STPs are located in urban centres," said IWK operations and maintenance regional manager (central) Mohd Taufik Salleh.

"The discharge is mostly oil and grease from restaurants and hazardous chemicals from SMIs," Taufik said.

"We have also discovered that aside from the excessive amount of rubbish dumped into the drains from restaurants and factories clogging the sewer lines, shoplots and flats that have been converted into hostels contribute to the problem.

"IWK is only tasked with treating domestic waste, but hazardous waste does end up at the sewerage plants. Our investigations also reveal that the clogging and overflowing of sewers happens in areas where foreign workers reside," he said.

Taufik said that in most cases, the indicator that something was not right was when a septic tank overflowed.

"Usually septic tanks are cleaned every few years, but if it needs to be done every few months, you know that something is wrong.

"For instance, we keep getting complaints that septic tanks near factories and shoplots in urban centres are constantly overflowing. After fixing the problem, it happens again.

"After investigating, we find that one shoplot has been converted into a hostel for 30 to 50 foreign workers. The toilet bowl is treated as a garbage bin.

"A lot of rubbish was flushed down the toilet and this contributed to the blockage and caused the sewers to overflow," he said.

Alam Flora, on the other hand, has compiled a list of the top 10 rubbish hotspots in the city that generate about 100 tonnes of domestic waste per day, an amount that can fill one football field each day.

Ultimately, everything ends up in the drains before being washed into the lakes and rivers and finally pollutes the sea.

Reaching out

Mohd Said said that after the success of public outreach activities in Hulu Kelang and Sungai Bunus under the RoL, the Government was now ready to tackle the more challenging urban centres in the heart of the city.

"So far, the outreach programmes have successfully raised awareness and fostered partnerships to reduce pollution in the outskirts of the city," he said.

The RoL project is one of the Entry Point Projects under the Greater Kuala Lumpur/Klang Valley National Key Economic Area (NKEA) and consists of three phases — river cleaning, river beautification and land development.

Twenty-six agencies from four ministries, two states and three municipalities are working together to turn Greater Kuala Lumpur into one of the top 20 liveable cities of the world.

"Since we started in 2011, 60% of our river cleaning projects have been completed. It covers three jurisdictions and eight rivers which make up a total of 110km of streams to be improved (see graph)," Mohd Said explained.

The project covers Selayang, Ampang Jaya and Kuala Lumpur and involves eight rivers — Sungai

Car workshops in the city are one of the top pollutants of rivers as toxins from oil and grease are poured directly into drains.

A drain clogged with oil grease and sludge found behind a shoplot.

Water pollution levels have increased drastically over the past two decades.

Mohd Said Dikon

Everything that is washed into storm drains and other drains will eventually end up in our rivers.

Datuk Mohd Azmi Ismail

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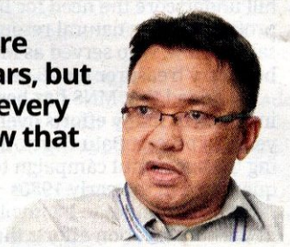
Mohd Taufik Salleh



Gombak, Sungai Batu, Sungai Jinjang, Sungai Keroh, Sungai Bunus, Sungai Ampang, Sungai Kerayong and Sungai Kelang. The entire project costs RM4bil.

"We aim to achieve Class 11B by 2020, which basically means that the water is safe to touch," said DID deputy director (river basin management) Datuk Mohd Azmi Ismail.

"Townships which are located near river banks often do not realise the extent of the damage created by wastewater and untreated sewage.

"Everything that is washed into storm drains and other drains will eventually end up in our rivers," he pointed out.

"Since the primary cause is pollutants generated from businesses and industries located at these hotspots, we will be taking our outreach programmes to town centres from now onwards," he said, adding that the work would start in June.

Mohd Azmi elaborated that smart partnerships had been forged with residents associations, schools and the business community via activities such as river carnivals, open classrooms and smart ranger programmes.

"We have worked with 14 schools in the Smart Ranger programme, and it is heartening to know that we are inspiring young children and educating them on the importance of taking ownership of their rivers.

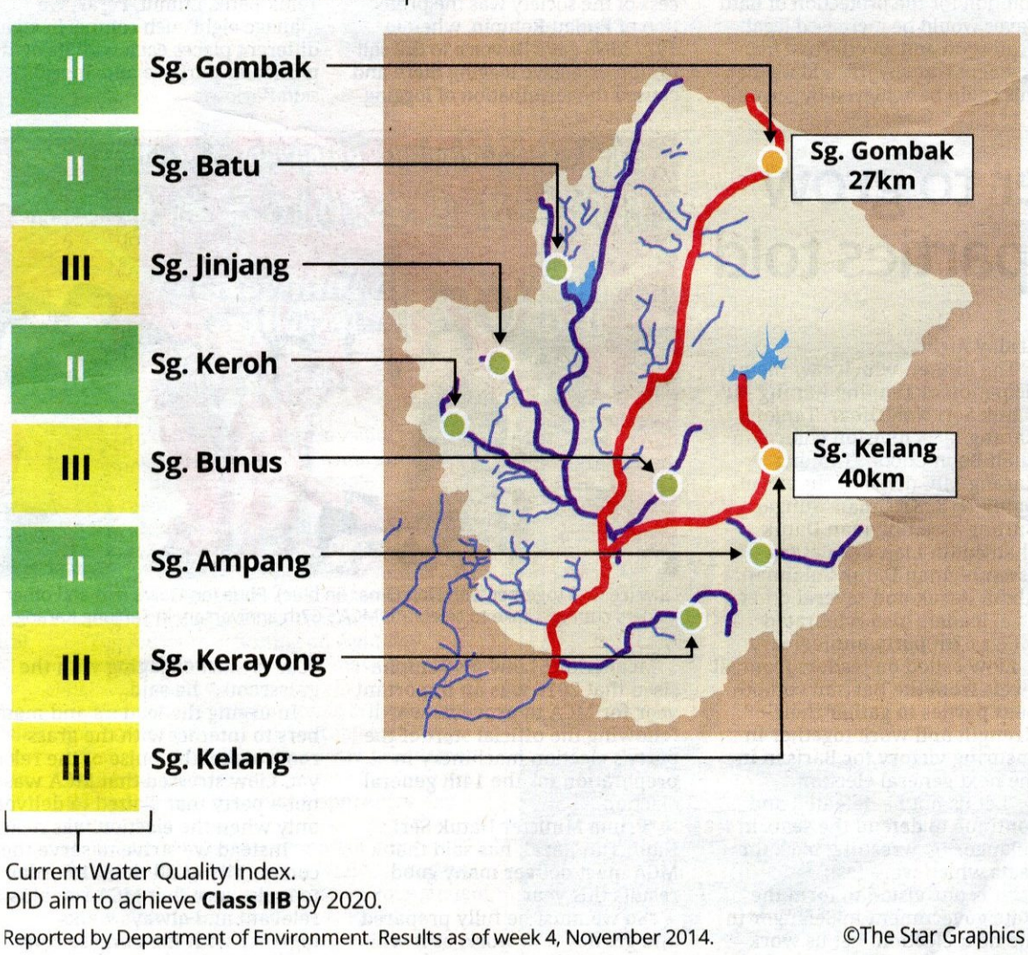
"These children will grow up to be responsible adults who will appreciate clean rivers and drains.

"But convincing city folk and the business community is not going to be that easy and requires political will to make it happen," he noted.

■ **Look out for part 2 tomorrow**

NKEA Greater KL/KV

The river cleaning project covers three jurisdictions and eight rivers which make up a total 110km of stream to be improved.



Current Water Quality Index.
DID aim to achieve **Class IIB** by 2020.

Reported by Department of Environment. Results as of week 4, November 2014.