

Polluting our rivers, polluting the world

LAST week, I was pleased to receive the book, 'About Sarawak Rajang River and the People: Living and Coping with Disasters', written by Irene Ng Pei Yi. I was impressed by the book's content, which contains stunning photographs and illustrations.

As the longest river in Sarawak and Malaysia, the Rajang River is home to numerous longhouses, and it has served as a vital transportation route for centuries. Trading posts sprouted along the river, and eventually, towns like Kapit and Sibuan emerged.

One of the book's most intriguing sections focuses on disaster coping mechanisms, with an emphasis on mitigating the effects of floods. Several approaches are described, including planting trees along the riverbanks as a natural barrier, relocating to higher ground, and improving the drainage system.

In Borneo, the 565km Rajang River is the seventh longest river. The longest river lies in West Kalimantan, namely the Kapuas River. It stretches for over 1,143km, according to Encyclopedia Britannica. The Mahakam River in East Kalimantan is the second-longest river in Borneo, stretching up to 920km.

The Mahakam Delta is home to dense and diverse mangrove forests. In Central and South Kalimantan, the mighty Barito River flows 890km from the Muller Mountain Range to the Java Sea, with the great city of Banjarmasin situated at its river mouth.

Interestingly, these three rivers are also the three longest rivers in Indonesia. Borneo's river civilisations are fascinating, with unique cultures and ways of life that have developed over centuries along its many rivers.

Transboundary governance

The Murutic culture of the Pensiangan River system is a very interesting case that I have encountered. One intriguing



Exploring Sustainable Development

with Dr Goh Chun Sheng

aspect of this river network is that it crosses the border of Sabah and North Kalimantan, making it a unique case of a transboundary river system. The border divides the river network into two parts – the upstream portion remains in Sabah and is referred to as the Pensiangan River, while the midstream and downstream sections are located in North Kalimantan and are known as the Sembakung River and its tributaries.

The border also essentially divided the Murutic communities into two nationalities (referred to as 'Dayak Agabag' in Kalimantan), just as the case of Lundayeh and Lunbawang on the highlands as described in a previous article. For both sides, the rivers are essential sources of water, food, and transportation to sustain their way of life for centuries.

After returning from my field trip to Pensiangan last year, I stumbled upon an outstanding PhD thesis by Nathan Bond, 'Seeking the State from the Margins', which discussed the Tidong's settlement along the Sembakung River. One chapter, in particular, caught my attention, which highlighted severe transboundary flooding.

These floods are commonly referred to as 'Malaysian-sent floods' by the Indonesians. Although some attribute the floods to land use changes in Sabah, doubts remain as the upstream has not experienced significant deforestation in recent decades. Nevertheless, there have been concerns



The Rajang River is home to numerous longhouses, and it has served as a vital transportation route for centuries. — Bernama photo

regarding upstream pollution. As the floods kill off plants, some speculating that the water contained some sort of 'racun' or toxic substance from chemical waste dumped indiscriminately into the river on the Sabah side.

In any case, the floods are no good. The thesis vividly describes that the floods have left indelible marks on the affected communities, with almost every house showing clear watermarks etched into its interior walls. In some cases, the floods have destroyed entire settlements, forcing residents to abandon their homes.

The floods also have severe implications for livelihoods, not only destroying paddy but also fruit trees and domestic animals, such as chickens, ducks, goats, and cattle.

River pollution may become particularly challenging in situations where a river is shared between multiple countries.

One way to address these issues is through the development of transboundary water agreements between the affected countries. These bilateral or multilateral

agreements can facilitate cooperation and coordination in river management, thereby reducing the risk of pollution and flooding.

From rivers to oceans

However, the problem may go beyond just two countries. Recently, a diagram illustrating the scale of oceanic plastic waste pollution went viral on LinkedIn and WhatsApp groups. Sadly, Malaysia ranked third on the list, with over 73,000 metric tonnes of plastic waste being dumped annually. While some may have assumed that coastal and water villages were the primary sources of plastic waste, the reality is quite different – the majority of plastic waste is derived from large rivers.

A study by a team of Dutch and German researchers, Meijer and Co, has shown that over 1,000 rivers are responsible for 80 per cent of plastic waste in the oceans. The Klang River is a major contributor, listed as the second largest source of oceanic plastic waste (1.33 per cent). Even more concerning, heavy floods,

such as those caused by heavy rainfall during December 2021, lead to a massive generation of post-flood waste, with some of it being channelled into the ocean via drains and rivers.

For Borneo, the Sarawak River is high on the list (0.34 per cent), probably owing to rapid urbanisation. Considering the smaller population, the per capita contribution of Greater Kuching (assuming one million) to oceanic plastic waste seems to be two, three times higher than Klang Valley (assuming nine million).

A shift in mindset?

Rivers are essential for Borneo's environment and ecosystem, serving as the lifelines for the coastal and river communities who depend on them for livelihood and daily activities. Disposing of rubbish, including illegal dumping and littering, has been a major factor that worsens pollution and flood problems for water catchment ponds and waterways. In addition, climate change has dangerously increased flood risk.

It is also worth noting that

rivers are also major sources of plastic waste that ends up in the ocean, causing harm to marine life and ecosystems. One cannot continue to live in a delusion that ocean pollution is 'none of my business'. One immediate effect is that plastic waste can contaminate the seafood that we consume, leading to health problems.

In longer term, when marine ecosystems are degraded, they lose their ability to sequester carbon, which can contribute to further warming of the planet. It is obvious that there is an urgent need for a shift in mindset among individuals and industries to stop waste from entering waterways.

During our visit to the Borneo Cultures Museum last month, we came across an interactive computer game where kids could control a dragonfly to clean up polluted rivers around the world, including the Klang River. This was an eye-opening experience for both the children and the parents. The game helped to make the topic more relatable and engaging. We think that this innovative approach to educating children about environmental issues is a step in the right direction.

It is essential to create more targeted and engaging awareness programmes for people of all ages if we want to make a meaningful impact in combating water pollution. Effective education is a key tool in tackling this issue, and hopefully, more people would join forces to explore creative ways to engage and inspire individuals and communities to take action.

Dr Goh Chun Sheng is a researcher at Harvard University. He is interested in exploring sustainable development in both Malaysian and Indonesian Borneo. His book, 'Transforming Borneo: From Land Exploitation to Sustainable Development', was recently published by ISEAS – Yusof Ishak Institute in Singapore.

Siblings go bald as show of support for cancer-stricken sister

Cindy Lai

WHEN a person is diagnosed with cancer, the news would devastate the whole family.

The journey of going for doctor consultations, the treatments that may incur some side effects and the endless emotional roller-coaster, all can be really exhausting.

The patient would go through the whole gamut of emotions – from disbelief to fear, to acceptance to reality – as well as the physical pain deriving from the illness itself and the host of treatments.

The only thing that could help them endure it all is the unwavering emotional support from the family, as is the case of Dayang Intan Batrisya.

The 10-year-old was diagnosed with Ewing's sarcoma of the left zygomata in 2022, after her mother Maria Anong Adini noticed a small lump on the child's left cheek.

The girl felt no pain when anyone touched the lump, and neither did she have prolonged fever – both said to be common symptoms in childhood cancer.

Still, the lump grew bigger two weeks later and seeing this, Maria knew right away that this condition must be checked immediately.

"I was feeling uneasy when



Dayang Intan with her mother Maria at the SGH, in Kuching.

toughen herself up so as to continue her role as the key emotional pillar in the family, but little did she know that her other children later made a decision that signified them wanting to help shoulder that burden.

Going bald as a family

The various cancer treatments meant that Dayang Intan could be losing hair. Prior to the diagnosis, the girl had luscious tresses.

Without hesitation, though, she decided to cut her hair to shoulder length before undergoing an operation to remove the tumour at Sarawak General Hospital (SGH) in

Dayang Alya Farizah booked a joint appointment at a salon in Miri to have their heads shaved. Tagging along with them was little brother Awang Amirul Hakim, 16.

"It was the least that I can do to support my sister, to let her know that she is not alone in this journey.

"I want to show her that we are going to be by her side the entire way," said Awang Arif, 22.

Dayang Alya Farizah, 20, expressed the same sentiment, describing going bald as 'a small gesture' and that it was 'nothing' compared to what her sister had been enduring.

"Knowing that she is bearing the physical and emotional toll



(Clockwise, from back left) Photo of Maria with her children Dayang Alya, Awang Arif and Awang Amirul Hakim, taken at a salon in Miri where the older siblings of Dayang Intan had their heads shaved.

"The pain never stopped her from continuing to feel and be positive, but seeing what her older siblings have done, she's not feeling alone anymore.

"In fact, she now appreciates being bald – seeing it as a sign of hope, courage and strength," said Maria.

Baldness as a sign of hope

Dayang Intan's family is just among the thousands in Sarawak affected by childhood cancer.

Their journey is an inspiring story, touching the lives of many Sarawakians as well as those in other parts of the country, and also encouraging them to pledge going bald this year.

GoBald 2023 was launched in March this year and since then, close to 70 individuals from all over Malaysia have pledged the commitment of shaving their heads in support of this campaign, including the youngest participant, at only 17 months old.

To date, hundreds of donors have pledged donations meant to help the organiser, Sarawak Children's Cancer Society (SCCS), reach the campaign's target of RM1 million.

It is hoped that leading up to the grand event this June, more would come and support this fundraiser, and also help the children and their families in the fight against childhood



my daughter had to be kept at Miri Hospital for a few nights. She went through numerous tests; the result came back as Ewing's Sarcoma – a type of cancer that occurs in bones or in the soft tissue around the bones located just below the eye.

"My heart sank. I felt so helpless for the first time in my life."

Ewing's Sarcoma is said to be the second most common primary sarcoma in children and young people.

Maria knew that she must remain strong and patient for her daughter, regardless of the circumstances.

She believed that she must

Kuching.

After recovering from the surgery, she was then put under chemotherapy, and a few sessions in, her hair started falling out.

Dayang Intan remained stoic – the drastic change and the pain from the treatment did not immediately affect her.

However for those witnessing her change, from a beautiful doll-like girl into a brave cancer fighter, was heart-breaking.

Being in Miri, her two siblings were not able to stay with her.

However, they were determined to go bald, as a show of support and solidarity for their little sister.

Awang Arif Hafizzudin and

from chemo is heart-wrenching.

"I cannot feel her pain, but I want to show her that her siblings are always here for her no matter what.

"Our hair doesn't matter, but our little sister does.

"I am not afraid to shave it all off because I am willing to sacrifice anything to help her overcome this obstacle in life," said Dayang Alya.

Awang Amirul Hakim remarked: "Family is everything. Going bald to support our sister is nothing compared to the pain and suffering that she has to endure."

Dayang Intan was ecstatic to see that her siblings had gone bald for her.



Photo from the family album shows Dayang Intan with her long hair, before the cancer diagnosis.

"They look just like me!" she shouted, seeing them in the photos and videos.

The words made Maria feel very proud of her children.

"Having gone through so many ups and downs in a matter of months since the first

diagnosis, and Dayang Intan never getting upset or ashamed of her changing appearance caused by the treatments, it's an immense sense of gratefulness and hope in seeing such a close and strong emotional bond between my children.

cancer.

Registration for GoBald 2023 is ongoing, and can be made via www.gobald.my.

Those signing up can choose either to help raise funds and shave their heads, or to only raise funds.

The organiser would ensure that the proceeds from the campaign would help children with cancer like Dayang Intan get access to more integrated and improved care, treatments and facilities, for them to get better.

***SCCS' Go Bald 2023 Campaign is back and set for June 11, 2023, running from 1.30pm to 7.20pm at Permaisuri Imperial City Mall, Miri.**

