



Saving the world, one school at a time

Three schools in Sabah are actively involved in environmental preservation activities. > 6 & 7



Cover story

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MALAYSIA'S adorable giant panda pair Xing Xing and Leung Leung broke the world record for having a second baby within four years via natural reproduction.

Born at just 150gm in January, the second cub that has not yet been named, has already garnered much affection from doting visitors at Zoo Negara, where she has been put on display alongside her parents.

According to the World Wildlife Fund (WWF), there are roughly 1,864 giant pandas left in the wild, living mainly in bamboo forests high in the mountains of western China.

Despite the peaceful creature's exalted status and relative lack of natural predators, pandas as well as many other species of animals still risk extinction due to man-made threats such as illegal or over logging and deforestation.

In a bid to cultivate appreciation and awareness of conserving the environment and wildlife among youths, the Foundation for Environmental Education (FEE) - a non-governmental and non-profit organisation - launched the Eco-Schools programme (see infographic).

WWF Malaysia, joined FEE as an associate member in 2010 and became the national operator for the Eco-Schools Programme in Malaysia in 2011.

The first Malaysian school registered in March 2011 and since then, over 170 schools registered with WWF to be part of the Eco-Schools Programme Malaysia.

Eight internationally-recognised Green Flag awards (equivalent to gold) have been given out so far, while over 30 silver and bronze awards have also been given to schools that have demonstrated active efforts in sustainability.

SM St Michael, Penampang

Despite being hit by flash floods in the earlier part of June, SM St Michael, Sabah, its compound remained serene and green.

Almost every inch of the school's compound was covered with various fauna, while button orchids hung from repurposed plastic bottles which lined every hallway of the school. It achieved a Green Flag status under the Eco-Schools Programme in 2015.

Since gaining recognition as an eco-school in 2012, SM St Michael has conducted activities - including water harvesting, composting, mudball making - and established programmes such as mentor SERASI, eco-schools sistership, school squad system and more.

The school also holds five national records in the Malaysia Book of Records for largest collection of flower pots made from coconut shells; largest collection of aluminium cans; largest number of piggy banks made from recycled papers; most number of mudballs produced; most number of magnets made from recycled paper; and most number of book-marks made from used materials.

SM St Michael eco-school coordinator Aereene Gabriel, 43, said the Green Flag recognition wasn't an easy one to obtain and an even harder one to maintain. "It requires a lot of effort from all teachers and students to keep the programmes running. It also involves a lot of funding which is lacking," she said, noting that the school usually conducts fund raisers or reaches out to private companies or the government for aid.

However, Gabriel pointed out that putting the environmental pro-

Ambassadors of the environment

Drastic climate change and the extinction of various species help youths to be aware of the need to conserve mother nature. *StarEducate* flew to Kota Kinabalu to check out schools that are actively involved in environmental activities.

Earth lost half of its wildlife in the last four decades

Life has existed on planet earth for 3.5 billion years. Natural disasters have triggered at least five mass extinctions in the past 500 million years, each of which wiped out between 50 and 90% of all species on the planet.



The most recent occurred about 65 million years ago, when an asteroid ended the reign of dinosaurs - opening doors for new mammals.

Currently, earth is experiencing its sixth mass extinction thanks to what humans are doing, according to the World Wildlife Fund's (WWF) 2016 Living Planet Report.

The report, which documents the state of the planet—including biodiversity, ecosystems, and demand on natural resources—brings together a variety of research to provide a comprehensive view of the health of the earth.



Researchers calculated the statistics by analysing a total of **14,152 animal populations from 3,706 species.**

The report revealed that:

Earth's population of wild vertebrates — mammals, birds, reptiles, amphibians and fish — **declined 58% from 1970 to 2012.**



The principal causes of the decline is habitat loss and degradation due to unsustainable agriculture and logging; changes to freshwater systems; and **overexploitation** (hunting and fishing, as well as accidental 'bycatch'), climate change, invasive species and pollution.

The fastest wildlife decline is in freshwater habitats, which lost **81% of their vertebrate populations between 1970 and 2012. The total number of freshwater vertebrates drops by about 4% each year.**



Habitat loss is the main problem for 48% of threatened freshwater species, including direct threats like wetland development and indirect threats like interrupted river flows. **Invasive species and disease also pose widespread danger, affecting 25% of threatened amphibian species.**



Populations of **land animals fell 38% overall**, but their decline was about half that in land-based protected areas.



Nearly one-third of all commercial fish stocks are currently at biologically unsustainable levels and are still being overfished. Marine animals — ranging from tiny sardines to the enormous baleen whales that eat them — have suffered a **36% population loss over the past four decades.**

Protected areas now cover **15% of the earth's land surface**, including inland waterways. Only **4% of the oceans are under protection** — but an array of new marine refuges have been created in recent years, raising hopes the tides are turning.

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Source: <http://www.worldwildlife.org> & <https://www.mim.com>

grammes into the school calendar as official activities was an effective way to involve teachers, students as well as parents.

"We indirectly educate students about environmental issues when it is part of our curriculum," she said. As part of the school's Corporate Social Responsibility (CSR), Gabriel added that the school signed a Memorandum of Understanding (MoU) with the district office to involve the community in environmental programmes that the school conducts.

"We also work with other schools

to try to influence and recruit them to join the eco-school programme," she said, adding that St Michael managed to get SMK Sri Nangka, Tuaran and SK St Joseph on board the programme in March.

Describing the students as "ambassadors of the environment", SM St Michael senior assistant (student affairs) Judith Fidelis Domsiah, 48, said students involved in conservation work can reap many benefits from it.

"Besides helping the environment, students get a platform to channel their creativity, concern, and feelings,

as well as expose themselves to ideas and people - enabling them to communicate and widen their knowledge when they attend eco-conferences and programmes," said the Science and Biology teacher who utilises the school's surrounding as educational stations for students to write essays or to teach her subjects as a way to keep them engaged to the great outdoors.

She also stressed that the head of school play a large role in influencing and nurturing youngsters to cherish and take care of the environment.

Nojuel J.C. Sotoku, 16, who is the

school's eco-club president, said students shouldn't neglect their role in conserving the environment.

"Nature gives us life, we cannot live without it. It isn't something humans can create once it has been destroyed," he said, noting that he enjoyed participating in eco-programmes as it gave him exposure and boosted his confidence as well as communication skills.

"We go on many trips (local and international) where we meet people and exchange ideas. It helps us realise there are other things other schools have implemented that we can follow as well," he said.

Reanne Richelle Munang, 15, agreed, saying that hearing tales about clean air and looking at pictures of humans mistreating animals motivated her to do more for the environment.

"In one of our many activities, we planted over 400 mangrove trees in the Tuaran area. It feels very rewarding when I'm helping the earth," said the eco-club's vice-president.

SK Lok Yuk Inanam

When Elizabeth Lok Fae Ling transferred to SK Lok Yuk Inanam, Sabah as headmistress in 2008, she had a vision to create an environmentally friendly atmosphere and a love for mother nature among the staff and pupils at the school.

Starting out with just a simple deed of composting, a long-term commitment to conserve the environment was established in 2009 when the school first got involved with environmental activities.

They received a bronze and two silver awards in the eco-school programme, and subsequently bagged the Green Flag award in 2016 - making it the first primary school in Malaysia to win this award.

Since registering as an eco-school in 2013, SK Lok Yuk Inanam has been busy running environmental programmes and activities including anti-drugs campaigns; Earth day; Say no to plastic and polystyrene campaign; and recycling campaigns.

SK Lok Yuk Inanam utilises every inch of its land well. It houses six gardens in its compound, including a vineyard, herbal, orchid and fruit garden.

To get the ball rolling in its initial stages, Lok, 60, said the school joined the Sekolah Rakan Alam Sekitar (Serasi) competition after starting a plan to improve the school - which was rundown and had only one building then.

"I realised the school compound had a lot of potential for environmental activities. We started with composting using cut grass, and extended to gardening using the usual method (planting in soil), and then ventured into hydroponic and aquaponic planting," she shared.

The environmental enthusiast called for other schools to join the Serasi competition first to get a feel of how running environmental programmes in school would be like before joining as an eco-school.

"Joining Serasi is a good stepping stone to be an eco-school. If a school wins awards or competitions, they

Eco-school coordinator Judy Lian Yee Ling said various themes including waste, nature and biodiversity, energy and healthy living have been carried out in the school for the past seven years.

Some of the activities the school conducted included making mud balls to clean the school's drains as well as the Moyog river in the surrounding area and many more.

"Everybody was very concerned about the environment so it wasn't hard to get people involved. Since the school earned its recognition as an eco school, our students became more aware of their surroundings," said the dedicated teacher.

She said catchy taglines that changes annually according to the theme such as "Trash to you; Gold to us" had kept the school's pace in the programme.

She noted that this year's eco-project was "Say No to Plastic Bottles", while last year's "Smoke Free School" campaign would continue on this year.

"We have a strict rule whereby no one is allowed to smoke or be seen with a cigarette 10ft from school grounds. No cigarette butts should be seen as well," she said, adding that the principal has the authority to fine a smoker RM100 on the spot if rules are broken.

On challenges in implementing the eco-school programme, Lian said the change of leadership in the school posed as an obstacle.

"When each new principal transfers to the school, he or she would need convincing on why the eco-school programme should be continued as it is believed that studies should the focus," she said.

She hoped SMK Bahang's students

would be able to "think globally and act locally" as well as work together to achieve the 17 Global Goals for Sustainable Development.

Lian believes that both performing and non performing schools can do their part for the environment, and called for other schools to "go green".

"The Eco-School Programme is a structured programme. You just need to follow the steps and the themes as they are down-to-earth, realistic, and doable," she noted.

Having a "green" school doesn't just save the environment, it provides an educational platform for students as well.

SMK Bahang has 149 special needs students who carry out gardening activities four days a week as part of their basic life skills (gardening) lessons (*Kemahiran Hidup Asas Tanaman*).

The special needs students grow organic crops such as lemongrass, chilli, lady's fingers, sawi, water spinach, eggplants, groundnuts and more. They weed, sow, and water them.

The harvested vegetables would then be sold to the canteen operator and teachers, generating a daily income of up to RM80.

Special education teacher Martina Marryscia Peripit said this project helps her students learn gardening skills.

Special needs student Fadli Munir, 14, (who suffers from slow growth) said he enjoyed gardening classes with Peripit.

"I like gardening because I feel satisfied when I see that my labour paid off. I get to harvest the vegetables with my own hands," said Fadli who tends to his crops carefully.

WHAT IS THE ECO-SCHOOLS PROGRAMME?

THE Eco-Schools Programme is the largest international sustainable schools programme in the world. More than 15 million students from 60 countries worldwide take part.

At the heart of the programme is a structured 'change management' process called "The Seven Steps", used by schools to work towards continuous improvement in environmental action.

The Seven Steps are:

1. Forming an eco committee;
2. Carrying out environmental reviews;
3. Create an action plan;
4. Monitor and evaluate;
5. Link environmental work with curriculum;
6. Inform and involve; and
7. Design an eco code (tagline) for the school.

At the international level, the programme is run by the Foundation for Environmental Education (FEE), a non-governmental and non-profit organisation.

WWF Malaysia became an associate member of FEE in 2010 and has been Malaysia's national operator for the programme since 2011.

There are currently more than 170 schools registered with WWF Malaysia and eight internationally-recognised Green Flag awards have been given out so far. Over 30 silver and bronze awards have also been given to schools that have demonstrated active efforts in sustainability.

The implementation of the programme in Malaysia is supported by a National Eco-Schools Committee, made up of partners from the Education Ministry, Natural Resources and Environment Ministry, Department of Environment, Yayasan Anak Warisan Alam Malaysia, Natural Resources and Environment Board Sarawak, Sabah Environmental Education Network, Universiti Malaya, Universiti Kebangsaan Malaysia, Universiti Sains Malaysia, Global Environment Centre, Friends of Kota Damansara, Malaysian Nature Society, and Scout for Nature.



Source: <http://www.wwf.org.my>
<http://www.ecoschools.global>

receive cash prizes which is useful for turning the school into an eco-school," she said, adding that the school used the grand prize money they received from winning Serasi to kickstart their journey as an eco-school.

She noted that it was crucial for head of schools to throw their weight behind such programmes.

"Educating the young about mother nature would help create a more lovable environment for future generations, enable them to have a sense of civic consciousness and reduce pollution," said Lok.

The eco-coordinator of the school Siti Yuslani Mohd Samsuri, 43, said the biggest challenge for the school was the lack of funding and getting teachers and parents involved.

She shared the eco-committee had to come up with strategies to gain cooperation from teachers, students, and their parents, which included incorporating Program Rakan Bumi (ProRaBu) into the school's curriculum, asking for participation in activities, among others.

"We tried to influence the community to care for the environment by carrying out community services outside the school," she said, adding that she hopes more people and schools will be supportive of this "green movement" and join in.

Eco-club vice-president Daphne Jacell, 12, said she plans to influence the principal of her potential secondary school when she completes primary studies at SK Lok Yuk Inanam this year.

"If I don't manage to enter an eco-school, I would muster up my courage and speak to the principal to try to influence her to turn the school into an eco-school," said the determined lass.

She said her uncle's death in 2015 from air pollution that infected his lungs motivates her to take part in green programmes.

SMK Bahang, Penampang

After winning a category in the Serasi state level in 2011, SMK Bahang was successfully acknowledged as an eco-school later in the same year.

The school has since won bronze and silver awards, and is aiming for a Green Flag award this year.



Fadli showing off the groundnuts that he harvested from SMK Bahang's vegetable garden.



Check out SK Lok Yuk Inanam's bathrooms that bagged a Five Star award from Kota Kinabalu City Hall. The bathrooms have aquariums within it and bear an ecological theme.