



15TH ECOFRIEND AWARDS



Recipients



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The logo for the 15th EcoFriend Awards. It features a stylized flame or leaf icon on the left, composed of orange, green, and blue segments. To the right of the icon, the text "15TH ECOFRIEND AWARDS" is written in a bold, green, sans-serif font.

15TH ECOFRIEND AWARDS

INTRODUCTION

There are many individuals around us who have selflessly put in their time and effort, to contribute to our clean and green environment. They come from many different walks of life, and include professionals, teachers, students, youths and community volunteers.

The EcoFriend Awards was introduced by the National Environment Agency in 2007, to recognise their outstanding contributions and the important role they play in promoting environmental sustainability. The 15th EcoFriend Awards recognises 12 such outstanding individuals for their environmental achievements.

There are five categories in the EcoFriend Awards – Private Sector, Public Sector, Non-Governmental Organisations and Grassroots Volunteers, Educational Institutions, and Youth and Students.

In addition, a Distinguished EcoFriend Award will be presented this year, for the first time. This award recognises especially significant contributions to Singapore's environment, characterised by strong and steadfast commitment of personal time and effort.

To better embody the EcoFriend spirit, the Award trophies have been completely redesigned this year. They are made of eco-friendly Jesmonite, a composite material that includes plastic wastes, used coffee grounds and wood shavings.

Do join us in celebrating our 15th EcoFriend Awards recipients in this booklet!

For more information on the EcoFriend Awards, please visit our website at:
www.nea.gov.sg/programmes-grants/grants-and-awards/ecofriend-awards





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Singapore's hardware is first world, but the heart-ware is still not quite there yet.

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Mr Edward Alec D'Silva

Distinguished EcoFriend Award

Chairman
Public Hygiene Council

Mr Edward Alec D'Silva, Chairman of the Public Hygiene Council (PHC), advocates personal responsibility and civic mindedness, for a truly clean Singapore.

Edward strongly remembers the litter-strewn streets back in the 60s and 70s. "It was so unsightly and dirty," he recalls. He vividly remembers how our late founding Prime Minister, Mr Lee Kuan Yew, tackled this problem. Mr Lee personally led the campaign for a cleaner city, by picking up a broom and sweeping up litter. His view that cleanliness and tidiness are indications of a people's level of civilisation strongly resonated with Edward.

The Public Hygiene Council, formed in 2011, continues to promote the values Mr Lee championed. The Council comprises representatives from multiple sectors, working together to strengthen and coordinate community efforts to improve cleanliness and hygiene standards in Singapore. PHC complements the government's efforts in maintaining high standards of cleanliness and hygiene, and is the driving force behind the 'Keep Singapore Clean' movement. PHC's council members include many recognised leaders from the cleaning industry, education sector, industry associations and grassroots.

Although he already had a well-established, lifelong history of voluntary service to the community and grassroots leadership, Edward was motivated to add PHC to his plate, as he deeply resonated with the Council's vision of a Singapore where everyone has a deeply-held value of keeping public spaces clean, and good hygiene and cleanliness habits are second nature. Next year marks his 10th year in PHC. As a PHC member, he has made many vital contributions to the Council's work, developing and driving many programmes to engage the public to promote good hygiene practices, and to improve personal and public hygiene standards in Singapore.

In recognition of his relentless efforts and leadership, Edward was supported by his fellow PHC members to take on the challenging role of the PHC Chairman in 2015. As Chairman, Edward has redoubled his efforts and commitment to fulfil the Council's mission, dedicating even more of his personal time and energy into all aspects of its work, from strategic planning to day-to-day operations.



Chairman | Public Hygiene Council

REDUCING RELIANCE ON CLEANERS

Edward notes that in its early days, the Council had a tough time encouraging Singaporeans to take shared ownership of public cleanliness, as Singaporeans felt entitled to having cleaners clean up after them. While things have improved, he shares that there is always a minority who continues to hold the belief that it is not their job to clean up common spaces. For example, he has encountered some parents even questioning why their children have to participate in school cleaning activities.

However, Singapore's over-reliance on low-skilled foreign workers and elderly cleaners is unsustainable, he warns. He strongly believes that we should take full responsibility for the cleanliness of our shared public spaces, starting right now.

OPERATION WE CLEAN UP & KEEP CLEAN, SINGAPORE!

Edward recognised early on that public cleanliness can only be achieved through the collective, sustained efforts of the citizenry. To promote that sense of ownership in the community, he mooted the idea of 'Operation WE Clean Up' in 2014. The event started out as a half-day litter-picking event at one location. With Edward's guidance, by the very next year, the event expanded to an island-wide movement with 85 organisations organising 169 litter-picking activities. By 2017, this grew to 287 organisations organising 385 activities island-wide.

Building on the success of 'Operation WE Clean Up', Edward developed a full-fledged campaign, 'Keep Clean, Singapore!', from 2018 onwards. 'Keep Clean, Singapore!' is now an annual, month-long, flagship initiative, comprising a series of activities organised by both PHC and its many partners, such as litter-picking, exhibits and skits, aimed at raising awareness and encouraging everyone to take personal responsibility for the cleanliness of shared public spaces. The campaign reached a peak of 450 organisations running more than 750 activities in 2019, before Covid-19 restrictions in 2020 and 2021 put many activities on hold.

SG CLEAN DAY

To foster good hygiene habits, Edward launched 'SG Clean Day', a day where cleaners are given a rest and community litter-picking activities are organised in neighbourhoods. Edward designed 'SG Clean Day' to create a strong visual impact of a littered environment to residents, through a temporary suspension of the cleaning regime of public spaces. Residents were then encouraged to join in their local litter picking exercises.

Edward worked closely with many Town Councils (TCs) to garner their support. It was not easy to convince them to suspend cleaning services even temporarily, in order for 'SG Clean Day' to work. Thanks to his tireless engagement, PHC obtained the full support of all TCs. With no sweeping activity at open areas and ground-levels of housing estates, 'SG Clean Day' is an eye-opener for many residents, who finally have an opportunity to witness the amount of litter that our cleaners have to deal with on a daily basis. The countless residents that have taken part in the litter-picking exercises have now gained a deeper appreciation of the important job our cleaners do.

'SG Clean Day' also involves many participating organisations and communities showing appreciation for their local cleaners, through gift vouchers or meals. In 2020, Edward managed to expand SG Clean Day from an annual to a quarterly exercise.



Chairman | Public Hygiene Council

SUSTAINABLE BRIGHT SPOTS

Edward was also instrumental in developing Sustainable Bright Spots in 2019, where residents of housing estates are encouraged to take strong ownership over the cleanliness of their shared living spaces.

Under the programme, residents make a long-term commitment to taking care of the cleanliness of shared public places within their communities, by conducting litter-picking activities, keeping all their events litter-free, and educating everyone on the value of picking up after themselves.

This programme has great impact at the local level by helping to engender a mindset that community shared spaces must be the responsibility of the local community residents, and not just external authorities.

As of 2022, 42 Grassroots partners are on board the programme. Edward is leading the PHC to progressively expand Sustainable Bright Spots to all of Singapore.

CLEANPODS

Edward was also behind the innovation of setting up the CleanPods, a self-help resource for groups to conduct their own litter-picking activities. CleanPods are sheds which contain common litter picking tools like metal tongs, trolleys and reusable pails (which serve as substitutes for trash bags). These tools can be accessed by members of the public, educational institutes, corporations, and NGOs, to conduct their own litter picking activities at their own convenience. After registering online, interested parties are given the passcode to access the relevant CleanPod. The participants then utilise the tools in the CleanPod to conduct their own litter picking at public beaches and parks. The participants are expected to clean and return the equipment when they are done.

In 2018, the CleanPods started out with just four sites in three public beaches and parks. The continuous promotion of public cleanliness through litter-picking has yielded 17 CleanPods across public beaches, parks and residential estates today. The convenient access to litter-picking tools has attracted approximately 50,000 participants to take part in litter-picking activities across 900 sessions annually.

CLEANER EVENTS PLAYBOOK

Noticing mass events tend to generate large amounts of litter, Edward led PHC in the development of a 'Create Cleaner Events Playbook'. This is a comprehensive guidebook to help event organisers mitigate litter at their events, through litter-free measures that can be implemented before, during, and after an event. The Playbook was launched in 2018, and is available for download on PHC's website. To date, 16 organisers of large-scale events like Standard Chartered Marathon, SAFRA's Army Half Marathon, and Singapore Kindness Movement have used the Playbook to make their events litter-free, benefitting more than 200,000 attendees.



Chairman | Public Hygiene Council

STAKEHOLDER DIALOGUES AND ENGAGEMENTS AND THE R.I.S.E NETWORK

Edward believes strongly in continual dialogue and engagement with stakeholders. Despite his extremely packed schedule, he taps on the extensive relationships he has built through the years to conduct regular meet-up sessions with industry leaders, educational institutes, town councils, and District Mayors. These sessions have served PHC extremely well in generating force multipliers to promoting their mission, and in growing wider support for the 'Keep Singapore Clean' Movement.

Edward's efforts led to the founding of the R.I.S.E. (Reach, Inspire, Synergise, Empower) Champions Network, with 24 founding members in 2019. The network has grown to a coalition of more than 45 organisations across the 3P sectors (People, Public and Private), committed to driving the 'Keep Singapore Clean' movement.

Edward chairs regular R.I.S.E. Network meetings, where members share their ideas and experiences with each other, forge partnerships and find synergy amongst themselves to grow the 'Keep Singapore Clean' movement at the ground-up level.

YOUTH ENGAGEMENT

"We are slowly seeing some positive signs from the younger generation," says Edward. He is heartened by up-and-coming changemakers such as his fellow EcoFriend winner, Samantha Thian – founder of social enterprise, Seastainable – who impressed him with her strong initiative, commitment and ability to rally support for her cause.

He believes that youths can be the ambassadors for change. To deepen the council's youth engagement, PHC is now partnering a representative from the National Youth Council and a R.I.S.E. Champions Network partner from Stridy, to spark a youth-led movement focused on a cleaner Singapore.

Singapore still has room to grow, he notes. Edward cautions that even though we are economically a first world country, we still lack the civic consciousness of a first world society.

"Singapore's hardware is first world, but the heart-ware is still not quite there yet."





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Nobody has a
'get-out-of-jail-free'
card and everybody
has to do their bit.

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Ms Clare Savereux

Private Sector Category

Senior Manager,
Regulations & Corporate Communications
PacificLight Power Pte Ltd

Ms Clare Savereux, Senior Manager of Regulations and Corporate Communications at PacificLight Power, promotes sustainability through community outreach and education.

As Chairman of her company's recreation committee, Clare has led her team with a strong commitment to the environment and sustainability. Their efforts include organising numerous recycling drives for staff, collecting mooncake boxes for children's arts and crafts projects in Cambodia, gathering used sport shoes for Sports Singapore, and pledging PacificLight's commitment to the International Coastal CleanUp.

However, Clare and her team have always believed that their company could also play a bigger role in helping the wider community learn to be more sustainable. This inspired them to develop and launch PacificLight's annual Crea8 Sustainability programme in 2016.



Senior Manager, Regulations & Corporate Communications | PacificLight Power Pte Ltd

CREA8 SUSTAINABILITY

Crea8 first started as a small art competition under South West Community Development Council, where young Singaporeans were invited to submit original artworks showcasing sustainability themes. Through creating and displaying these artworks, Crea8 encouraged participants to tackle environmental issues by reducing their carbon footprint and leading a more sustainable lifestyle.

The competition has since expanded its reach to the rest of Singapore, branched out to preschools and tertiary schools, and added video and essay components for older students to participate in. Since its launch in 2016, Crea8 has reached out to 190 schools and received over 1,300 submissions in total.

As participation is not school-mandated, the enthusiasm of Crea8 participants and their continued participation year after year has been particularly touching for Clare. One parent even asked if the competition could be held more often and volunteered her own services.

Clare and her team have also actively coordinated site visits to PacificLight's power plant for schools and community organisations. Participants gain a greater understanding of the internal workings of a combined cycle power plant, which allows for greater energy efficiency and sustainability. Since the start of these site visits five years ago, the plant has received close to 2,000 visitors.

RAISING THE NEXT GENERATION OF ENVIRONMENTAL ADVOCATES

Clare believes that education and understanding is the key to kickstarting the ripple effects needed to change behaviour. She hopes that by reaching out to children and youths, they will help to spread the message to their friends and family.

In 2019, a new collaboration was started with MyFirstSkool, to champion the inclusion of sustainability in children's formative years of education. At MyFirstSkool's Learning and Sharing Festival, Clare engaged with parents, educators and other stakeholders, encouraging them to incorporate sustainable lifestyle habits in the students' curriculum. Her team provided educational activities and materials, jointly developing and producing 36,000 children's sustainability journals and activity books for the students. This year, a similar collaboration was extended to ASPN Tanglin Special School.

GROWING SLOW AND STEADY CHANGE

Describing herself as a pragmatist, Clare recognises that some people may view her sustainability efforts with scepticism because of her corporate background in a power company. "Ultimately, we have to be honest with ourselves and say we all want air-conditioning," she muses.

Nevertheless, she believes that each one of us has a responsibility to do what we can. "Nobody has a 'get-out-of-jail-free' card and everybody has to do their bit. You quietly go on and you do what you need to do. It's not about looking for huge wins," she tells us.



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It is really about using what you have to its maximum potential.

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Mdm Saadiah Mohd Amin Bawany

Public Sector Category

Senior Technical Officer,
Landscape Services, School of Engineering
Institute of Technical Education (ITE) College East

Mdm Saadiah Mohd Amin Bawany is a Landscape Services Senior Technical Officer from the School of Engineering in ITE College East, who inspires youths with her infectious passion for sustainability.

On campus, Saadiah is the go-to person for anyone with recyclable items or seemingly worthless materials. Far from seeing these items as garbage, she sees endless creative potential.

Saadiah saves the discarded items, which range from bottles to LAN cables, in a storeroom. Every week, she puts some of these items together to bring new, interesting activities to the students in the Green Ambassadors Club that she advises.



Senior Technical Officer, Landscape Services, School of Engineering |
Institute of Technical Education (ITE) College East

FINDING BEAUTY IN DISCARDED ITEMS

"I'm always curious. I like learning new things," says the 60-year-old. Though she is full of ideas for upcycling projects, Saadiah laments that she does not have enough time for all of them.

Her passion for upcycling first began over a decade ago, when she was working for the Electronics Department. Back then, there was no way to recycle e-waste, so discarded scientific equipment simply went into the general waste bin.

Thus, Saadiah took it upon herself to dismantle the equipment bit by bit, so that she could extract the reusable materials. Through trial and error, she learnt to make beautiful accessories from the extracted wires and then taught the upcycling process to her students.

She and her students opened a booth to share this crafting methodology with the public. One booth visitor found it so useful that she went on to turn it into a small business helping migrant workers.

Since then, Saadiah has helped to lead innumerable creative recycling initiatives and art projects, reaching out to both students and the wider public.

"It is really about using what you have to its maximum potential."

CULTIVATING GREEN PRACTICES

Saadiah's curious spirit is also perfectly complemented by her green thumb. In 2017, with guidance from Siloso Beach Resort, she helped to establish a wormery at ITE College East, which recycles approximately eight kilograms of organic food waste every week.

She makes sure that her students play an active role in caring for the project, so that sustainability can become a part of their lives, even after graduation. She shares that the fertiliser produced by the wormery is much safer for the environment and can be used in the college's own garden.

She and her students have also been formulating a soil mix to share with the public, so that HDB residents can more easily grow plants in their own corridors. She emphasises that growing your own greens is easy and rewarding. "Singapore's weather is good. You don't need indoor lights. Sunlight is more than sufficient," she explains.

ENERGISED BY A SUSTAINABLE LIFESTYLE

Despite juggling many eco-projects, Saadiah finds that spending time with her Green Ambassadors Club members keeps her energised. Many of her former club members often return to ask for materials from her storeroom, for their own green projects.

"No matter how tired I am, when I come to work, the energy comes back."



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Who says sustainable products or services must be expensive?

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Mr Preston Wong

Non-Governmental Organisations (NGOs)
& Grassroots Volunteers Category

CEO & Co-founder
Treatsure Pte Ltd

Mr Preston Wong is the CEO and Co-founder of treatsure, a social enterprise tackling food wastage.

Preston and his partner, Kenneth Ham, first started with the simple aim of redistributing soon-to-expire food from businesses to consumers.

They launched the treatsure app in 2017, primarily working with small F&B outlets. The app quickly expanded the next year to rope in bigger businesses such as hospitality groups, hotel chains and buffet restaurants. He explains: “They have constant streams of surplus food throughout the day: breakfast, lunch, high tea, dinner, and even room service.”



CEO & Co-founder | Treatsure Pte Ltd

TACKLING A MULTI-FACETED PROBLEM

However, the food left behind in F&B outlets, kitchens and buffet tables is just one dimension of a complex food wastage problem. "There are so many other sources of wastage," he notes. Consumers only see the tail end of the full process, he says, but there are many other different pockets of food wastage at each stage of the journey, from food source to dinner table.

To tackle more food waste streams, treatsure diversified into groceries in 2019, selling surplus and 'imperfect' food. 'Imperfect' food can be anything from blemished produce to a mildly dented can.

While technology can help decision-makers make better stocking decisions, Preston notes that no system can be perfect. He points out: "There will always be some level of residual excess." He hopes to normalise 'imperfect' food for consumers, so retailers will in turn be more accepting of them.

CHANGING BEHAVIOURS

Although Preston is doing so much for sustainability now, he admits that he was not very eco-conscious growing up.

Talking to current treatsure users, he realised that those who are eco-conscious have often had formative experiences around nature and sustainability from childhood. If sustainability is inculcated in students from a young age, he says, then they are more likely to make more eco-friendly choices throughout their lives.

To facilitate this, treatsure has started organising sustainability tours and experiences for schools and companies in recent years. "We are trying to change mindsets and behaviours," he explains.

MAKING SUSTAINABILITY ATTAINABLE

"Who says sustainable products or services must be expensive?" asks Preston. By making sustainability more affordable and convenient, he hopes to change the perception that it is only for a small group of people. For example, treatsure offers a buffet-in-a-box service. From just ten dollars, users can purchase packed food at allocated time-slots from participating hotels or restaurant buffets.

More recently, treatsure has also branched out to lifestyle products and introducing newer sustainable options to users. The products on offer range from home composting kits to beeswax food wraps. "The supermarkets may not accept them readily because they're too niche," he notes. Treatsure, on the other hand, is willing to stock innovative products that are still new to the market or still in their early pilot phases.

With pandemic restrictions winding down, Preston aims to redouble treatsure's efforts in the hospitality sphere and expand its grocery and lifestyle offerings.

"There are a lot of suppliers and we're just touching the tip of the iceberg."



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I don't view my work as work per se. I'm always working on sustainability, even on weekends, but I enjoy doing it.

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Mr Loo Deliang

Non-Governmental Organisations (NGOs)
& Grassroots Volunteers Category

District Councillor and Vice Chairman,
Environment Functional Committee
South West Community Development Council

Mr Loo Deliang, Vice Chairman of the South West Community Development Council (South West CDC) Environment Functional Committee, mentors youths and empowers them to make a difference.

Deliang's day job is head of the Sustainability Unit in the National University of Singapore. In his after-hours, he actively helps to organise many sustainability events in South West CDC, like the annual recycling drive, 'Clean Up South West!'.

Yet, the environmental work that takes up so much of his work and personal time never feels like a drag. "I don't view my work as work per se. I'm always working on sustainability, even on weekends. But I'm enjoying it," he says.

For the last five years, Deliang has been sharing his wealth of experience with youths who are trying to develop green initiatives. He provides mentorship under the South West ECo Fund Plus, and more recently, the newly launched ZeroWaste Testbed Initiative @ South West, which supports youths in the co-creation of innovative zero waste and circular economy solutions for the community.

Some examples of these youth-led projects include 'Recycle Right' bins, designed to make it easier for users to understand what can and cannot be recycled; and 'Share-Your-Book @ South West', which rewards book donations with discounts and vouchers.



District Councillor and Vice Chairman, Environment Functional Committee |
South West Community Development Council (South West CDC)

OVERCOMING LOGISTICAL CHALLENGES

"Most of the time, it's the logistics that will kill the project. There are a lot of good ideas, but it's not feasible to implement them everywhere," he laments.

While mentoring young hopefuls, he encourages them to first understand the problem and its context, before looking for a solution. He cautions: "Don't come in with 'I have a technology. I am trying to find a problem to solve.'"

Technology, he says, is part of the solution, but it's not a silver bullet. To better understand the context of a proposed initiative and the behavioural barriers present, you have to walk the ground.

Deliang recalls his own past experiences of dumpster diving in recycling bins to learn more about consumer behaviours. "If you just rely on Google or some other secondary source, it's very hard to get an appreciation of what the issue is," he says.

NURTURING PASSIONATE YOUTHS

Deliang explains that before giving out funding, the CDC evaluates many factors such as feasibility, scalability and how well the proposal has identified the problem area. However, the most important factor is passion.

He acknowledges that most projects will not be able to pass all the criteria. But as a fellow volunteer, Deliang believes in being encouraging and supportive to those with genuine passion.

When he was younger, he too was not very sure how to tackle climate change, he admits. But thanks to the opportunities and support given by others, he was able to keep trying and learning.

To him, sustainability solutions are a process of co-creation that may take months, or even years, of dedication. He compares the projects to lotuses in a pond. "Some are in the mud. Some are struggling to get above the water."

But with care and guidance, they can bloom.



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Ultimately, I think there are a lot of people around who want to do good things. They just need a way to do it.

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Mr Pawan Kumar Sachdeva

Non-Governmental Organisations (NGOs)
& Grassroots Volunteers Category

Tanjong Rhu Neighbourhood Committee
Member

Mr Pawan Kumar Sachdeva is a member of the Tanjong Rhu Neighbourhood Committee, championing water efficiency and sustainable practices.

For most of his career, Pawan has worked in hectic financial markets. But by 2015, he was burnt out emotionally.

Surrounded by people chasing financial rewards, he describes his world back then as “monochromatic”. He says: “I felt like my life had stagnated. And I was getting tired of that stagnation. There was nothing keeping me happy.”

He decided to take a big leap of faith and pursued a growing interest in sustainability, specifically how water was being managed locally. In 2016, as a member of the Tanjong Rhu Neighbourhood Committee, Pawan took the initiative to dig into condominium records to figure out just how efficiently water was being used.

“I was a financial analyst for very long. I had a way of looking at things that was very helpful,” he quips. From the numbers, he quickly realised that more needed to be done and leapt into action.



Tanjong Rhu Neighbourhood Committee | Member

PLUGGING LEAKS

With support from the Public Utilities Board, Pawan planned and executed a biennial Water Efficiency Workshop for condominiums in 2016. In addition to exchanging knowledge and best practices, a quarterly Water Efficiency Index (WEI) report was developed for condominiums in Tanjong Rhu Road. The WEI provides a comparison of water consumption across 18 condominiums, spurring a friendly competition to reduce water consumption, with visible results each quarter.

In his own condominium, he pushed for the use of sensors, cloud technology and data analytics, to give managers a daily update on their water consumption. This way, sudden spikes in water consumption would be noticed and fixed promptly.

“Once you are metering everything, you are being watched for your water consumption and your behaviour will change,” he explains. By increasing the visibility of the numbers and promoting a sense of ownership over water consumption, Pawan succeeded in cutting water consumption in his condominium by seventy per cent.

More and more people are reaching out to him to improve the water efficiency of their own organisations, even as he continues to reach out to more condominiums. The meaningful endeavour continues to bring him great pride and satisfaction. “This has been my happiest journey,” he shares.

SNOWBALLING CHANGE

Aside from promoting water efficiency, Pawan has helped to organise many community recycling drives. He single-handedly coordinated with different stakeholders such as NEA, public waste collectors, condominium recyclers, schools and volunteers. Every collection drive has turned in remarkable results. For example, a one-day collection in April 2021 pulled in over 1,000 kilograms of e-waste, and gathered 305 kilograms of shoes (approximately 1,100 pairs), which can be recycled into around 50m of running track.

Pawan and a fellow resident have also organised “ReUse” events at The Waterside condominium since 2016, to collect used items in good condition from residents, and sort and redistribute them to others in need. This positive cycle of reusing has become an avenue for residents to come together for a good cause, while reducing waste.

Capitalising on how more individuals began taking walks during Covid-19, Pawan reached out to condominiums to store litter-picking kits at each guard house, as part of a “Walk & Clean” activity. These kits are made available for residents to conduct their own litter picking around the neighbourhood. Since its launch in October 2020, more than 200 kits have been drawn by residents.

“Ultimately, I think there are a lot of people around who want to do good things. They just need a way to do it,” he observes.



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We are empowering children to not only change the environment and their own lives, but also change the world.

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Mdm Rina Yap Siu Lin

Educational Institutions Category

Principal
Dazhong Primary School

Mdm Rina Yap Siu Lin, the Principal of Dazhong Primary School, promotes environmental stewardship through education.

Rina has an unusual stop for tours of her school. She usually invites her visitors to take a look at the toilets. For her, the toilets demonstrate that her students have clean, hygienic habits and take pride in their environment. “Habits, when started young, will stay for life,” she reasons.

She is proud to show visitors how clean the toilets are. They are the result of Rina’s school-wide environmental focus, which is guided by five ‘G’s: ‘Giving’, a ‘Growth’ mindset, growing ‘Green Habits’, ‘Graciousness’ and ‘Gratitude’. Students are taught to be appreciative of their environment and to use their thoughts, words and actions to care for the Earth.



Principal | Dazhong Primary School

GREEN EDUCATION

Rina and her staff integrate sustainability topics into the school's curriculum to excite, engage and empower students. For instance, in maths lessons, students tackle problems such as calculating how a family can reduce its electricity bill.

The school also grows vegetables on its rooftop gardens, so that students can better appreciate the effort put into growing the food that arrives on their tables. The school library features aeroponics equipment, which teachers use to prompt students to think about why some vegetables are more expensive than others, and what kind of food choices we should make to reduce waste.

Through these activities, Rina wants her students to become concerned citizens, who are self-directed learners and serving leaders. "We want them to be critical thinkers, as they use the resources around them," she explains.

WHOLE-OF-SCHOOL APPROACH

From 2018 to 2021, the school successfully reduced its use of electricity, water and paper by over ten per cent. Despite the pandemic, the school managed to do away with plastic disposables, by encouraging all students and staff to bring their own containers for takeaways.

Rina credits her staff for all the extra effort that they have put into enhancing daily learning and events for students, to empower them to become eco-champions.

But it is not just the teachers. Rina also often talks to her school cleaners, to reassure them that their work is valued and meaningful. She says: "I empower them to tick off my kids if they are not practising good habits. And they do, because they all love the kids very much and they understand what will happen to the Earth if we don't have good habits."

A CULTURE OF GRACIOUSNESS

People may often accumulate a lot of items that they do not need at home. But Rina notes that for underprivileged students, bad hoarding habits sometimes develop in their families because of need. Many of Dazhong's students come from challenging financial backgrounds, with about thirty per cent of the student population receiving financial assistance.

"We help them to understand that it's okay to give," she says. She tells students that it is through giving and sharing that we can open our hands to receive.

"We are empowering children to not only change the environment and their own lives, but also change the world."



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As long as the idea is mostly workable, we want to let the students try it.

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**Ms Liang Kai Poh**

Educational Institutions Category

CCA Teacher-in-charge, Environmental Club
Bukit View Secondary School

Ms Liang Kai Poh, teacher-in-charge, Bukit View Secondary School Environmental Club, empowers her students to lead their own green projects.

Every green project feels meaningful to Kai Poh. She values how each project can become a source of pride for her students, as she wants her school's Environmental Club to be more than just an ordinary CCA for its members.

She encourages her students to find meaning and passion in what they do. "Otherwise, it would just be my project and they're executing it for me," she says.



CCA Teacher-in-charge, Environmental Club | Bukit View Secondary School

SUPPORTING STUDENT PASSION

Kai Poh sees herself not so much as a teacher, but as a facilitator, working with her club members to support their ideas. Ideally, every project must be sustainable, by being easy to maintain and pass on to the next batch of juniors to manage.

However, she acknowledges that as students, their ideas can sometimes be impractical. In such cases, Kai Poh still believes that she can try her best to support them. "We don't want to kill the student's passion. As long as the idea is mostly workable, we want to let the students try it," she explains. "By giving them the space to fail, they can understand the problem better and improve".

One memorable project was the inaugural National Youth Business Challenge in 2015 that her students took part in. Aimed at youths, the event was organised to generate Earth-friendly business concepts, by giving youths the opportunity to market their business ideas.

Back then, upcycling was still new. Nevertheless, under Kai Poh's guidance, her students used trial and error to creatively upcycle products from plastic bags. She is proud that her students were able to overcome the practical limitations of what was available to them, to create products like pouches.

The team was awarded gold and the 'Most Earth Friendly Enterprise Award'. The money collected from their sales went to the school to support needy students.

CULTIVATING LEADERS

Kai Poh also helps to organise the Student Environmental Leadership Conference, a science learning programme which invites primary school students to visit Bukit View. Held regularly since 2006, this conference gives her school's Environmental Club members the opportunity to become student leaders and environmental advocates.

The last conference before the pandemic in 2019 reached out to roughly 300 primary school students from 18 primary schools.

As part of the Conference, her club members guided their younger peers through different stations around the Bukit View campus, to learn more about science through the school's environmental features, such as its solar panels and eco-garden.

From starting a vegetable farm to promoting recycling on campus, Kai Poh has helped to support and organise countless projects. The enthusiasm of her students fuels her own drive for environmental education. "They're more excited than me when it comes to these things."



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There are small and basic actions for sustainability that all of us can do, including young children like our primary school students.

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Ms Tan Ai Kiam

Educational Institutions Category

Subject Head,
Information and
Communications Technology (ICT)
Punggol Primary School

Ms Tan Ai Kiam promotes a green culture among students and teachers at Punggol Primary School.

Ai Kiam was not eco-conscious at all in 2018, when she first became the teacher-in-charge of the school's GreeNovation project, a programme aimed at creating a school-wide green culture. But that gradually changed as she learned more about the world's environmental problems.

As her own behaviour changed, she began encouraging others to do the same. “I really try to lead by example, especially for my team,” she says. For instance, she ensures that she always uses her own container when buying takeout from the canteen, and actively encourages others to do the same.



Subject Head, Information and Communications Technology (ICT) | Punggol Primary School

CELEBRATING STUDENTS' IDEAS

Games and competitions are a good way to get students engaged, she shares. For example, last year, the committee implemented a simple design competition, encouraging students to brainstorm environmental ideas during their recess.

The ideas submitted were then shared with the rest of the school on a notice board, and students voted on the best submission. Some ideas, such as a ban on giving straws to upper primary pupils, were later implemented within the campus.

She points out that it is easy for teachers to share slides or internet videos on the environment. However, she found that the best way to influence students is to showcase work from their peers.

For example, one memorable student showcase was a recycling rap, from a group of Primary 5 pupils. The rap, which was written by the pupils, was presented onstage to the school during assembly as a closing item to GreeNovation week. It was also recorded on video and shared on a neighbourhood community's Facebook page. She notes: "They recorded it themselves, during their free time."

RECOGNISING GREEN EFFORTS

Ai Kiam and her committee have also encouraged teachers and students to make their own recycling bins from recyclable materials and keep them in the classrooms for use.

After seeing good examples of upcycled bins from other classes being showcased during assembly, more students and teachers got interested.

"This year, every class actually has a very nicely decorated bin, with posters designed by the students themselves – telling their friends what can be recycled and what cannot be recycled," she says with pride.

The school went one step further with its annual student awards, which were previously mainly given out to recognise academic achievements. However, last year, 22 new GreeNovation awards were given out, to further motivate the awardees and inspire others to do more.

Sustainability has become a part of Ai Kiam's everyday life. At home, she grows her own vegetables such as lady fingers, and actively encourages her own children to follow her green habits. In school, she finds that she no longer needs to remind students to do things like recycle. Her students take the lead to encourage their peers, and even their teachers, instead.

"There are small and basic actions for sustainability that all of us can do, including young children like our primary school students."



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People asking me for help has driven me to do more and learn more, to not only benefit myself, but others around me.

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Ms Anjali Ravi

Youth & Students Category

Vice Chairperson,
Science and Environment Club
Singapore Chinese Girls' School

Ms Anjali Ravi, the Vice Chairperson of the Science and Environment Club in Singapore Chinese Girls' School, galvanises support for environmental change among her peers.

Anjali's friends and family sometimes jokingly nickname her 'Environmental' or address her as 'Vice Chair of the Environment'.

She does not mind the moniker at all. In fact, being widely seen as someone who cares a lot for the environment, often prompts people to approach her for advice. "People asking me for help has driven me to do more and learn more, to not only benefit myself, but others around me," she says.

Having a strong connection to nature and wildlife, Anjali mobilised her peers early this year to help raise donations for the animal protection charity, ACRES, by collecting recyclables.

However, to her alarm, many people were asking her basic questions about what can or cannot be recycled. Some people even had the misperception that used tissue paper is recyclable.

She was also shocked and upset when she saw used drink packets and other non-recyclables disposed in her school's recycling bins. She knew she had to do something about the issue.



Vice Chairperson, Science and Environment Club | Singapore Chinese Girls' School

PROMOTING GOOD RECYCLING HABITS

After speaking to her teachers, Anjali gathered members of her club and developed a video presentation on good recycling practices to educate her school peers.

"We just filmed basic videos and stitched them together. It wasn't the most high-quality video, but I think it did bring out the message as effectively as possible," she explains. To make the facts more memorable, she also employed humorous skits and light-hearted music during her presentation.

"They did laugh about it, but at the end of the day, it stuck with them," she remarks. After some time, she observed that some of her friends were now taking the initiative to remind each other about what items can be recycled.

CHANGING MINDSETS THROUGH CONVERSATION

Anjali believes in hearing out different perspectives and talking it out with her peers, to persuade them to choose eco-friendlier options when they can.

For instance, when she and her peers were selling jewellery as part of her school's integrated business programme, she convinced her schoolmates to minimise the amount of packaging used. "Aesthetics and practicality are not the most important things in life," she quips.

Looking into the future, Anjali hopes that people can be more eco-conscious about their resource use. The 16-year-old notes: "Climate change is not going to happen in a few years. It's already happening now."



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Living in the environment that we have is a privilege.

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Mr Lee Zong Hong, Anthony

Youth & Students Category

Vice Chairman, Green Council
Hwa Chong Institution

Mr Lee Zong Hong, Anthony, plays a leading role in promoting sustainability in Hwa Chong Institution (HCI).

Anthony has been in love with the concept of sustainability since he was a child. His inspirations include his sister, Laura Lee, who was a recipient at the 14th EcoFriend Awards.

Watching his sister establish ToiletRollSG, a recycling initiative that collected 860 kilograms of toilet roll cores from 2019 to 2020, motivated him to do something meaningful with his own time. Anthony decided to do this by spearheading Project Eco-lution, a student-led campaign to promote recycling within HCI, featuring a competition between classes to collect the most recyclables.

“Honestly, my mindset was: Why not just do it? I could do something impactful for the environment,” he states. But he acknowledges that when he first floated the idea to his fellow councillors in the Green Council, they were sceptical, as they already had a lot on their plate.



Vice Chairman, Green Council | Hwa Chong Institution

DRIVING SCHOOL-WIDE RECYCLING

Fortunately, two of his friends were willing to help him from the get-go. Together, they reached out to different recycling companies. His parents also advised him on how to communicate with big corporations, and gave him practical suggestions on how to improve the project.

Eco-lution succeeded in partnering L&G Recycling, which sent a professional to HCI to give a school talk and help students better understand how recycling can be done properly. Anthony enlisted the help of his fellow Green Councillors and every class' Green Ambassador, to publicise the competition and motivate their classmates.

Eco-lution also pushed out as many messages as possible to the students through the school's web messaging platform. These messages included the dos and don'ts of recycling and updates on the top three classes in the recycling competition.

As a result of these publicity efforts, Project Eco-lution collected over 2,600 plastic bottles and nearly 200 kilograms of paper items.

SMALL CHANGES MAKE A BIG IMPACT

Anthony has since noticed small changes in his schoolmates' day-to-day behaviour. In the past, after playing basketball, they would buy drinks from a vending machine and dispose of the bottles in the general waste bin, which would soon be overflowing with plastic bottles.

But now, they are actively and consciously making an effort to recycle their bottles, he says. "Although it looks like a small change, but to me, it really made a big impact."

However, Anthony's push for sustainability is not quite done. He is currently working with a new partner to explore how edible algae can be grown sustainably and made accessible to the wider community.

Despite many such sustainability projects under his belt, Anthony remains eager for more opportunities to help the environment. He strongly believes that "living in the environment that we have is a privilege."



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We need more sustainability advocates as one person is not able to do everything.

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Ms Samantha Thian Tshi Hui

Youth & Students Category

Founder
Seastainable

Ms Samantha Thian Tshi Hui is the founder of Seastainable and the lead at Stridy, a non-profit litter collection app. She drives various sustainability efforts and is passionate about beach clean-ups.

Samantha's father is a wind surfer who used to take her to 'longkangs' to see hermit crabs as she was growing up. She was raised with a love for the ocean, taking readily to kayaks, paddle boards and wakeboards, with an intimate connection to nature.

As a young adult, she obtained a professional scuba diving licence, became a divemaster, and quickly fell in love with the beauty of the underwater world. However, she was also deeply concerned by the man-made litter that she saw, everywhere she visited.

In 2017, she established Seastainable, a social enterprise to tackle marine debris and support conservation.



Founder | Seastainable

AN EVOLVING FOCUS

Seastainable initially focused on selling reusable products like metal straws, working with different regional partners to source for more sustainable products. Fifty per cent of its profits went into marine conservation and other sustainability projects.

However, when reusable products came more and more in vogue, Samantha realised she did not want to add to a consumerist culture. She wanted Seastainable to live up to her belief that the best option is to always to reduce what you buy.

So even though it was a counter-intuitive decision, she decided to pivot the business away from its retail arm. Now, Seastainable focuses on its sustainability consultancy services instead.

ORGANISING BEACH CLEAN-UPS

In 2020, Samantha noticed a rise in the amount of trash washing up on Singapore's beaches. To combat this, she started a community group to coordinate clean-ups along East Coast beach and bring like-minded individuals together.

At present, there are over 3,000 members in the community chat and more than 400 clean-ups have been conducted.

To more efficiently track the clean-up efforts and scale them up, Samantha got involved in the development of 'Stridy', an app which collates data from individuals into an open source, community-led database. The app allows users to track their impact of their litter picking and share photos with others.

The community of beach clean-up enthusiasts has become self-sustaining, Samantha observes, which she finds heartening. "People don't say 'I'll wait for Sam to come and help out.' They will just organise and do the clean-up by themselves."

SPREADING THE WORD

What Samantha finds most rewarding is seeing people around her blossoming in their own environmental journey. "We need more sustainability advocates as one person is not going to be able to do everything," she says.

She gives the example of her current co-lead for the beach clean-up initiative, Yasser Amin, whom she first took under her wing two years ago. "Now, he's leading his own organisation. He doesn't need me anymore and that's very rewarding," she says.

If you're interested in making a difference, just get out there first, she advises. "I think a lot of people are held back by perfectionism. It's a very long journey and the important thing is to really just try."

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