

SOUTH CHINA SEA DISPUTE SOUL SEARCHING NEEDED A26
BREXIT YOU BREAK IT, YOU OWN IT A27

OPINION

THE STRAITS TIMES

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Linking campus and workplace

Strategic players in the knowledge economy include universities, innovative companies and individual risk-takers. While all three are vital, how can they be made to interact more dynamically and flexibly? This perplexes as the skeins of disciplined learning, profit-driven application and “crazy” invention are not easily woven together. In high-profile instances, path-breakers like Bill Gates, Steve Jobs, Frank Lloyd Wright and Mark Zuckerberg found it necessary to drop out of college to fulfil their vision. Decades later, the young still feel they have to apologise to go outside the university to experiment, as was heard at last week’s Straits Times Education Forum at the Singapore Management University.

A co-founder of recruitment website Glints, who put his further education at a top school on hold, said it was “a matter of asking for permission and forgiveness” in order to go against what the system had imposed initially. This is hardly a culture one should retain here. After all, every society needs risk-takers in order to evolve, as acknowledged by Acting Minister for Education (Higher Education and Skills) Ong Ye Kung.

With wry wit, playwright George Bernard Shaw had observed that while the reasonable man adapts himself to the world, it’s the unreasonable one who goes against the grain. “Therefore all progress depends on the unreasonable man” – the disruptors and agents of change. Given their

value, there’s benefit in drawing them into established learning environments. Accommodating misfits, however, comes hard for universities, especially those clinging to ancient teaching strategies. For example, despite calls to replace a “sage on the stage”, droning on about a subject, with forms of “active learning” that promote participation, old practices and notions linger in many universities. Their crucial role as providers of public and private goods – in the spheres of education, research and applied problem-solving – requires the pace of change to be quickened.

One significant break from tradition here will be the pilot “cooperative programmes” to allow students to alternate seamlessly between campus

and a workplace, with half or more of their time devoted to real-life pursuits. The scheme will be led by the Singapore Institute of Technology and SIM University, which will partner bigger companies and government agencies. Closer collaboration between institutions of higher learning and industry can raise the quality of education as a whole. Importantly, the two have an important role to play in cracking the difficulty of evaluating much-needed 21st-century skills like critical thinking, problem-solving, teamwork and digital competencies. Singapore universities and companies should be at the forefront of such efforts as economic restructuring will hinge on nurturing more workers who can innovate collaboratively.

HomeFront

Sorting out the recycling blues of Singapore

The dismal household recycling rate needs to be raised fast as the sole landfill site is running out of space



Samantha Boh

It is not difficult to recycle in Singapore – at least not in theory.

There are recycling bins under every one of the 10,000 or so Housing Board blocks here. They are also in private residential estates, though in fewer numbers.

And unlike “model” recycling countries such as South Korea and Germany, there is no need to take the effort of separating recyclable items to go into bins for paper, plastic and glass.

Items are sorted by workers at materials recovery facilities, which are run by four public waste collectors – SembWaste, Veolia, 800 Super and Colex.

All that Singapore residents need to do is take their cleaned plastic bottles, cereal boxes and Milo tins and dump them into the blue bins.

So, then, why is the household recycling rate a mere 19 per cent?

Taiwan has a household recycling rate of 55 per cent, and Germany and South Korea boast recycling rates of 64 per cent and 59 per cent respectively for municipal waste, according to statistics by the Organisation for Economic Cooperation and Development.

Singapore’s Changi Airport is consistently rated the best in the world. The Republic is also known for its world-class education system. Yet the country finds itself struggling to get more people to recycle.

BLAME RUBBISH CHUTES

When Singapore’s population rose dramatically between 1947 and 1959, growing from 0.938 million to 1.579 million, there was an urgent need to move people from unsanitary and poorly ventilated kampung homes into better housing. Thus the first Housing Board flats were built, and each came with a refuse disposal chute to make it convenient for people to discard their trash.

Initially residents did not take well to the new concept, preferring to leave their rubbish in common corridors, stairwells or throw it out of the window – something that does not happen often these days.

Today, chutes are found in the kitchens of older flats and at the lift landings of newer ones.

They serve as a direct route to the rubbish collection bins at the foot of each block.

But now the concern is that a feature that has helped keep housing estates clean is actually hindering recycling.

At a dialogue session on sustainability at the Singapore Management University in 2014, some participants said having the chutes has made residents less aware about how much they are wasting.

“Rubbish chutes in households make Singaporeans stop thinking about waste once they throw it into the chute. Out of sight, out of mind,” one participant said.

Madam Chng Ah Su, 69, a housewife living in Punggol, tells The Straits Times that it is just so fussy-free. “You don’t even need to step out of your house. Just open the lid, dump your trash in, and then close it,” she says.

Since residents are so used to the convenience of rubbish chutes, why not allow them to recycle that same way? That could have been a factor in the HDB decision to centralise chutes for recyclables in all new HDB blocks from January 2014.

ONE CHUTE BAD, TWO GOOD?

With over 80 per cent of Singapore’s resident population living in HDB flats, the Housing Board found itself playing “a major role in supporting the national commitment to sustainable development in its towns and estates”, it tells The Straits Times.

“Waste minimisation is one important aspect of sustainable development,” it says. As a result, it implemented a dual chute system where the lift landings of each floor of these new blocks had two chutes – one for rubbish and one for recyclables.

While there were some initial kinks, such as residents misusing the recycling chute for general household waste and bulky items, a



survey at Treelodge@Punggol in 2011 – one of the first estates to pilot the system – found it to be effective. The amount of recyclable waste collected per block was about three times more compared with other similar-sized housing estates.

As of April this year, the system has been incorporated into 72 new Build-To-Order projects comprising close to 426 blocks islandwide.

But there is a limit to this system, as Associate Professor Tong Yen Wah from the National University of Singapore (NUS) points out.

The co-director of the NUS Energy and Environmental Sustainability Solutions for the Megacities programme notes that it would be technically challenging and costly to retrofit this design to old HDB flats.

He, like other waste management experts, suggests learning from other countries.

LEARN FROM OVERSEAS

Prof Tong suggests implementing a pay-per-opening system for common central refuse chutes, using radio frequency identification tags.

When used together with sensors, data on the amount of waste generated for each household can be tracked each time a person opens the chute,

which could be used to run incentive schemes.

For example, those who throw less, pay less in waste management fees, or receive tax rebates, he says.

This method of tracking heavy polluters is used in some European municipalities and is getting increasingly popular in the United States.

“The merit of such a system is that it does not only focus on recycling, but waste minimisation in the first place,” says Prof Tong, though he highlights one downside – the high cost of installing the sensors.

Economies closer to home such as South Korea, Taiwan and Japan have also implemented pay-as-you-throw systems where users are charged based on how much they waste, while recycling and composting are provided free of charge.

This was one of the suggestions mapped out in the Solid Waste Management Technology Roadmap announced early this month by the Government.

In Taiwan, residents buy government-certified blue plastic bags – costing as little as NT\$1 (five Singapore cents) for a small bag to NT\$216 for five large ones. Violators are fined up to NT\$6,000, or even publicly shamed.

Together with other initiatives,

encourage the young to recycle, and to do it correctly, for example.

Yet the household recycling rate has in fact fallen, from 22 per cent in 2010 to last year’s 19 per cent.

Mr Juergen Miltz, secretary of the Waste Management and Recycling Association of Singapore, thinks the issue is that the educational campaigns have been too general, and their results hard to track.

TARGETED EDUCATION

Mr Miltz, who also runs Recycling Partners which provides consultancy and equipment for the waste management industry, believes that educational campaigns should be based in the community and executed by grassroots organisations.

Such small-scale and more personal initiatives would be more useful in reaching the people who decide whether to throw or to recycle – housewives and retirees.

He also believes that there is no one type of initiative that will work on all housing estates. To really figure out what is standing in the way of recycling in each community, he suggests doing a waste audit.

This can also be done by installing sensors on the lids of rubbish and recycling chutes, as well as recycling bins. But instead of using that information to charge residents, the authorities could use it to find out which blocks are recycling less and which more.

“From there you can tell whether people are just not recycling, or recycling wrongly if you find high volume of usage and high contamination,” he says.

With a proper waste audit, the effectiveness of educational campaigns can also be objectively evaluated by calculating changes in amounts of general waste and recyclable waste.

According to Mr Miltz, this method also has a social effect that has helped improve recycling rates in Italian cities like Venice and Florence.

“Just knowing that someone is watching how much you throw or recycle makes you more mindful,” he says.

PEOPLE NEED TO ACT NOW

Whether Singapore will decide to continue with the soft approach or take a hard stance – either by educational campaigns or making recycling mandatory – is anyone’s guess. But what is clear is that it has to act fast.

The country’s only landfill site in Pulau Semakau will run out of space by 2035.

Right now only 51 per cent of paper, 7 per cent of plastic and 13 per cent of food waste are recycled even though these items were part of the top five types of waste generated last year.

The overall recycling rate here is 61 per cent, likely dragged down by the 19 per cent household recycling rate – the industrial recycling rate stands at 71 per cent.

Things need to change if the 70 per cent national recycling rate target for 2030 is to be met.

As Ms Jeanne Stampe, Asian finance and commodities specialist at the World Wide Fund for Nature, puts it: “Attitudes need to change and we must learn that recycling is not an inconvenient option but an absolute necessity.”

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