

# Helping rural S-E Asia to jump on digital bandwagon

By Wong Poh Kam and Geoff Jiang

**S**OUTH-EAST Asia produces the vast majority of the world's palm oil, widely used in food and cosmetics, as well as a source of bio-fuel. But just as palm oil benefits economies throughout the region, its cultivation also results in huge amounts of waste and pollution.

Lack of effective waste monitoring plague the biggest producers in the region, and a major reason is due to the cost of technology, with only about a tenth of the plantations linked to the internet and few farmers able to afford the costs of expensive satellite connections.

Some homegrown tech startups are already seeking solutions to these difficult issues. In Singapore for example, one company has found a way to harness TV white space and idle TV spectrum to provide low-cost and long-range transmissions.

This could be deployed on palm plantations in countries such as Malaysia, Thailand, and Indonesia, connecting smart sensors to help farmers have a better overview of their operations and increase yields across vast areas of crops. The technology has also been deployed to connect Internet of Things (IoT) devices as part of the efforts in Singapore's Smart Nation transformation.

While South-east Asia's fast-growing internet economy has been projected to expand to US\$240 billion by 2025, traditional primary industries such as agriculture, forestry and fishing remain a significant contributor to GDP. Similar to other sectors in the region, agriculture faces a digital transformation, driven by the rapid development and adoption of data analytics, cloud computing, traceability, satellite imaging and the IoT.

But agriculture is just one of the many sectors that can be "rejuvenated" by digital technology. Real-time data needed to cut waste and increase the effectiveness of food distribution could help relieve world hunger in this instance, but the application of technology for solutions that benefit society is a major global phenomenon and a responsibility that we must embrace.

Recently, Ant Financial and National University of Singapore came together to launch the Alipay-NUS Enterprise Social Innovation Challenge, to identify and support the growth of startups in South-east Asia.

This is an effort to work with local

innovators by contributing technological and entrepreneurial know-how to address real-world problems in their communities through a systematic approach. For example, one finalist was an AI startup that developed a nursing system to monitor elderly citizens in order to provide immediate medical support in the event of an emergency. Solutions such as these will improve the quality of healthcare and maximise the efficiency of caretakers. This will be of fundamental importance for countries with a growing ageing population like Singapore, whose Department of Statistics suggests that a fifth of residents will be 65 or over by 2030.

However, digital transformation can also be a double-edged sword as innovation brings disruption to traditional industries. Estimates from the World Economic Forum suggest South-east Asia will be among the worst hit by the global phenomenon of technology displacing some jobs and creating new ones.

The region faces a displacement of 28 million full-time equivalent jobs and net losses of 6.6 million, as workers lack necessary skills to take on the evolving roles, according to a report by Oxford Economics and Cisco.

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According to research from Deloitte, rural South-east Asia will be home to 47 per cent of the region's population and 30 per cent of its GDP by 2025. They face a digital divide that will hinder economic progress in

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many industries. More could be learned from companies like Viasat that provides access to broadband through satellite-enabled community Wi-fi services to isolated areas – currently in US and Mexico.

Training and cultivating a group of social innovators to come up with similar solutions could prove a catalyst for the region.

Education brings multiple benefits. On one level, it helps empower innovators and entrepreneurs and spur them to find novel ways to improve lives. Furthermore, basic digital skills training of groups such as farmers will be crucial to demystifying technology and helping them climb onboard the digital bandwagon.

A significant shift in the workforce will take place in South-east Asia and it will be both a challenge to identify the areas that will continue as viable, and an opportunity to provide the skills needed. Through public-private collaboration that spans business and academia, meaningful changes can be initiated.

Last year, Ant Financial entered a partnership with the International Financial Corporation, a member of the World Bank Group, to inspire tech leaders and local talent to become "drivers for change" in the digital era, promoting technology inclusion and global sustainability. The 10x1000

Tech for Inclusion programme aims to train 10,000 technology experts in emerging economies over the next decade, with Indonesia as the first destination. The programme dovetails with the Indonesian government's 2020 Go Digital vision. This pool of trained local talent will become drivers for change in the digital era, promoting technology inclusion and sustainability in their respective communities.

Closing that loop, the country winners of the Alipay-NUS Enterprise Social Innovation Challenge – from Singapore, Indonesia, and Malaysia – will become eligible for this 10x1000 training, ensuring the development of these promising tech leaders can be taken further.

South-east Asia continues to evolve rapidly, with each market on a different rung of the development ladder. As we race onwards, it is important to remember those who stay behind. Our mission is to digitally enable and include the underprivileged and empower those on the forefront to amplify their impact.

If we succeed, all will benefit.

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