Helping rural S-E Asia to jump on digital bandwagon

By Wong Poh Kam and Geofl

SOUTH EAST Asia produces the vast majority of the world’s palm oil, widely used in food and cosmetics, as well as a source of biofuel. 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 transform TV white space and idle TV spectrum to provide low-cost and long range transmisions.

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$326 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, and blockchain.

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 efficiency 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 nurse warning 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 innovations bring 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 has a displacement of 28 million full-time equivalent jobs and net losses of 6.9 million, as workers lack necessary skills to take on the evolving roles, according to a report by Oxford Economics and Cisco.

Gaps in knowledge need to be closed if the full power of the digital world is going to be harnessed to the benefit of all. And in South-East Asia, there has never been a more pressing need for the development of new skills in many industries. More could be learned from companies like Visa that provides access to broadened through satellite-enabled community with 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.

According to research from De Lint, rapid South-East Asia will face challenges to get 47 per cent of the regions 50 per cent of the GDP by 2025. They face a digital divide that will hinder economic progress.

Gaps in knowledge need to be closed if the full power of the digital world is going to be harnessed to the benefit of all. And in South-East Asia, there is never been a more pressing need for the development of new skills.

Similar to other sectors in South-East Asia, agriculture faces a digital transformation, driven by the rapid development and adoption of data analytics, cloud computing, traceability, satellite imaging and the IoT.