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Behind increasingly tech-savvy societies: A concern for the environment



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The pervasive use of the Information and Communication Technology (ICT) products in our daily life has led to what is now often referred to as the 4th Industrial Revolution. From internet and smart phones to blockchain technology and the Artificial Intelligence, the whole of society seems ready and eager to embrace the latest innovations in the ICT realm.

The finance industry has begun to make use of this technology and extend their services to schools and retailers through cashless payments. Governments are already switching their services to the online platform. At the regional level, countries in Southeast Asia are making plans to build ICT-enabled smart cities as evidenced in their participation in the ASEAN Smart City Network. Indeed, in 2017 the PWC reported that the Internet of Things (IoT), drones and autonomous vehicles, blockchain, augmented and virtual reality, more sophisticated digital assistants, and artificial intelligence are dominating the progress made in the technological realm. In short, the

ICT is set to lead major multi-sectoral and multi-level transformations within societies.

Environment: A forgotten concern?

Among the numerous benefits that the ICT advancements offer, concerns over breach of privacy and cyber crimes have widely circulated. Another aspect that engenders much debate is the psychological effects of the increasingly strong dependence on the ICT products and its impacts on interpersonal relationships. Much less attention, however, is given to the very aspect that is immediately affected by the proliferation of the ICT products, and that is the environment.

Electronic products generate electronic waste (e-waste). An estimated 20 to 50 million tons of e-waste is generated across the globe every year, and they potentially pose disruptive impacts on the ecosystem due to the presence of toxic materials such as lead, mercury, cadmium, nickel, beryllium, and zinc. While existing waste management

practices may already be in place, the doubling up of e-waste generation by personal computers, cell phones, and televisions from 5.5 million tons in 2010 to 9.8 million tons in 2015 raises questions as to whether countries are adequately prepared to deal with the speed and volume of e-waste generated at present and in the future.

Strong policy responses and coordination needed

A United Nations University (UNU) report in 2016 showed varying policies and practices of e-waste management across Southeast Asia. Among other observations, two issues are worth highlighting. First, both formal and informal facilities are involved in e-waste

treatment; however, the latter does not normally adhere to the best available techniques and the best environmental practices. Thus, potential hazards for human health and the environment could increase.

Second, illegal exchanges of e-waste products among countries thrive due to a number of factors including different waste classification and enforcement capacities to clamp down illegal e-waste traffic.

The stark gap between the exponential increase of the use of ICT and other electronic products and the capacity to deal with their end-of-life waste needs to be urgently addressed. Beyond security worries, governments and relevant

stakeholders need to ensure that policies and mechanisms are adequate to safeguard their citizens from health and environmental risks brought about by e-waste. To this end, it is important for ASEAN to develop region-wide strategy to coordinate national policies on e-waste management.

Suggested Readings

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CLIMATE CHANGE

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1.5°C too soon: More must be done

Margareth Sembiring,
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Gendered discourse about climate change policies

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7th European Environmental Evaluators Network Forum

22–23 November 2018
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World Summit on Climate Change & Global Warming

26–27 November 2018
Tokyo, Japan



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ENERGY SECURITY

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Budapest, Hungary



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HEALTH SECURITY



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HUMANITARIAN ASSISTANCE AND DISASTER RELIEF

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New Orleans, USA

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WATER SECURITY



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Colombo, Sri Lanka

Water Security and Climate Change Conference 2018

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