



Persatuan Pengguna Pulau Pinang Consumers Association of Penang

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Press Statement

21 August 2018

Light Pollution Is Just As Bad As Any Other Pollution

The association between light pollution and diseases with it is not well studied in Malaysia. In a 2013 study by University of Malaya's Engineering Faculty, 80 per cent of the survey respondents said that they do not know what 'light pollution' is while another 20 per cent said that they know. Therefore, there is little wonder that many of the respondents wanted the area outside their residence to be as "bright as day".

Overly bright night environment is causing what is called 'light pollution' and research has shown that it is causing a plethora of problems – ranging from health to ecological impacts – yet many Malaysians are not aware of that. Artificial light sources such as those from bright xenon headlights of cars, light badly designed street lamps, LED lights, glowing handphone screens, television sets, and even those in our homes are the culprits.

Much had been touted about LEDs being a light source that is much brighter, does not generate heat, much cheaper in production cost, longer life expectancy, and using less electricity as compared to a conventional light bulb. LEDs are being produced en masse and are used extensively on a global scale despite not fully understanding how their light can impact on the environment. Although LED lights appear white, they are giving off much light in the blue part of the spectrum. This type of light is the most disruptive as to how our body should work under day or night environment.

No matter what the artificial lights are, most of them interfere with everything from metabolism to mental alertness and the immune system.

Hence, the Consumers' Association of Penang (CAP) calls on the government to urgently introduce Light Pollution Act soonest possible to mitigate light pollution that is pervasive in, particularly, the urban areas. In fact excessive artificial light is a mere artificial extension of daylight hours to enable us to work or socialise after dusk, resulting in disrupted sleep patterns.

One obvious impact is that as we tend to have unhealthy late dinners and suppers. There are food outlets and nightspots that are open till late at night or past midnight, enabling people to have late dinners and suppers which disrupt their body's processes modulated by external cues such as brightness and darkness.

Essentially our body is confused by the extended 'daylight' created by the artificial light and certain bodily functions either slowed or stopped working as they are designed to, thereby lowering the immunity system for diseases to manifest.

Habits of staying up late because of artificial light are found to be causes to the feeling of tiredness, irritability, and health problems such as obesity, heart disease, high blood pressure and type 2 diabetes. Furthermore, research shows that light pollution affects humans as well as animals and plants.

Studies have shown that night shift workers, exposed to bright light at their workplace at night, have higher rates of obesity and other related diseases. These correlates with another study that show that elderly people in Japan tend to have bigger girth if they are exposed to higher light intensities at night.

Other diseases that are linked to staying up late into the night are stomach problems and ulcers, depression and increased accidents and injuries. The incidence of breast cancer in women also increased. In fact, there is strong evidence to link night shift workers who are exposed to bright light at night to similar diseases as those who having late nights or disrupted sleep patterns.

Evidence appears to point to melatonin, a hormone that is produced at night, and is known to help in regulating the body's biological clock. The hormone manages a list of biological activities including 'telling' the body organs that it is night-time. However, the production of melatonin drops drastically with the presence of bright artificial lighting and this increases a person's risk of developing cancer. We would advise consumers not to over-light the environment and if possible, opt for bulbs that give out light yellow or orange hues, and switching off lights when they are not needed.

We also urge the government to ensure that street lamps are well shaded to prevent the light from shining into people's homes or diffusing upwards purposelessly into the night sky. As such we need light pollution to be regulated under an Act to make the country safer and healthier.

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