

Green Wave Environment Care Competition 2017

Project Title: Haze Runners

Award: Commendation Award

Team Members: RGS Year 4 students Ashita Ashish Sule, Woo Hoi Yuet, Cheng Zhi Ying and Fallon Thng

Project Summary

In view of the recurring haze issues that plagues Singapore every year, the haze situation has brought about undesirable consequences, a decreased air quality and hence increase in health issues, such as respiratory issues, amongst Singaporean citizens. Limitations of current measures to combat the haze situation within households, such as air purifiers and air-conditioners are as follows – high purchase costs, high electricity bills and hence a greater adverse impact on the environment, evident from a survey conducted where it was discovered that electricity consumption has doubled from usual levels during hazy periods, with overall electricity bills reaching nearly \$150. To counter these limitations, our proposed product is a netting with pores from 0.1 to 0.3 micron, similar to N95 masks, preventing 95% of harmful particles from entering houses. These can be easily installed on window ledges in homes to filter out harmful particles from entering houses. It will be sold at a price of \$35 and will come in a form of a 300cm x 600cm sized roll. Based on a survey, we conducted – 70.5% of respondents were willing to buy our product.

The advantages of our product are as follows:

- (1) Increased cost efficiency – as air-conditioners or purifiers tend to cost minimally \$100 and require regular maintenance which resulted in greater costs, our netting sold at \$35 is 65% lower than the regular price of such electrical appliances. Hence, our product can be purchased at a cheaper cost and will not incur long-term financial burdens through rising electricity bills, making it more appealing for most Singaporeans, especially lower-income families.
- (2) Environmentally friendly – our product eliminates the need to turn on electrical appliances during hazy periods, thus reducing energy consumption and hence global warming.
- (3) Increased ventilation – This netting increased ventilation indoors as residents will be able to open their windows during hazy period due to its lightweight and breathable property.
- (4) Versatility – The netting is made of a flexible material which is foldable and easily brought around. Hence, it can be used in various nettings like offices or any enclosed areas with windows. Furthermore, as our netting comes in a roll, any household will be able to utilize our netting regardless of the different sizes of windows they might have since they can simply cut the netting to the correct size that will fit the windows in their houses without the need of advance tools or skills.