A GREEN SOLUTION TO AIR POLLUTION

As the human population continues to grow, the toll this exacts on our atmosphere can be taxing. With the need for more heavy industry and other necessary machinery to maintain our current way of life, air pollution has also become part and parcel of our daily lives. In Singapore, our air quality is generally within acceptable standards, barring periods when the annual haze creeps in and engulfs the island in a grayish smog for months on end.

URBAN AIR QUALITY

Despite increased health awareness, the importance and impact of air quality on our health are still often overlooked.

As stated by the World Health Organization (WHO), air pollution – both indoor and outdoor - causes an astounding amount of premature deaths: varying between 5.5 million and 7 million people every year, making it more deadly than HIV, traffic accidents and diabetes combined.

According to Dr Carlos Dora, WHO Coordinator for Public Health, Environmental and Social Determinants of Health, “Excessive air pollution is often a by-product of unsustainable policies in sectors such as transport, energy, waste management and industry. In most cases, healthier strategies will also be more economical in the long term due to health-care cost savings as well as climate gains.” Therefore, it stands to reason that having a cleaner air quality can at once generate substantial environmental and economic benefits.

In the workplace, if the indoor air quality is favourable, employee absenteeism levels will fall due to lesser instances of taking ill, leading to a more productive, healthy workforce. Indeed, indoor air quality is a major tenet of the Better Places for People initiative started by the World Green Building Council, with an emphasis on creating healthier spaces for occupant wellbeing.
SO WHAT CAUSES AIR POLLUTION?

VOCs are volatile organic compounds generated by common items that surround us everyday such as copiers, printers, correction fluids, carbonless copy paper and many more. Odourless, its presence often go unnoticed while having an alarming adverse impact on our health.

THE EFFECTS OF VOCS INCLUDE:

- Eye, nose and throat irritation
- Headache, loss of coordination and nausea
- Damage to liver, kidney and central nervous system
- Some VOCs are suspected or known to cause cancer in humans

COMMON TYPES OF VOCS:

PLANTS’ IMPACT ON AIR QUALITY

Based on studies conducted by NASA, the right plants can soak up harmful particles and release fresh oxygen, while adding a decorative touch. They are able to metabolize toxic chemicals, releasing harmless by-products, and incorporate toxicants such as heavy metals into plant tissues, thus sequestering them. Additionally, indoor plants will alter the moisture content of the air, which must be regulated so as not to promote mold growth. Some people may have allergies to certain airborne pollutants and moisture and when not effectively mitigated by plants, can exacerbate problems for building occupants.
PLANTS BENEFICIAL TO INDOOR AIR QUALITY

ENGLISH IVY
- Removes Benzene and Formaldehyde
- Fantastic for asthma and allergies

CHINESE EVERGREEN
- Removes Benzene and Formaldehyde
- Emits high oxygen content

BOSTON FERN
- Removes Formaldehyde
- Natural air humidifier
- Said to be among the best in air purifying houseplants

GOLDEN POTHOS
- Removes formaldehyde and Carbon Monoxide
- Increases general indoor air quality
PLANTS BENEFICIAL TO INDOOR AIR QUALITY

PEACE LILY
- Removes Benzene, Formaldehyde, Mold spores, Trichloroethylene, Alcohols and Acetone
- Increases general indoor air quality

WARNECKII
- Removes Benzene and Trichloroethylene
- Increases general indoor air quality

SPIDER PLANT
- Removes Formaldehyde, Carbon monoxide, Toxins and impurities
- One of the top three types of houseplants that are great at removing Formaldehyde

PHILODENDRON
- Removes higher concentration of Formaldehyde
- Increases general indoor air quality

Courtesy of Chop Ching Hin Pte Ltd.
A LIVING FILTER

Chop Ching Hin has been working with plants for the better part of over 40 years, striving to integrate the benefits of greenery into modern society. Through knowledge and extensive research, the GWS Living Filter was developed to help bring forest air into our buildings and the GWS air filter is specially designed by professionals to combat the different community.

As a HVAC (Heating, ventilation and air conditioning) system integrated with green elements to create dynamic air flow, this innovative filter is a fusion of nature (plants) with technology to generate cleaner air with elevated effectiveness and efficiency in terms of reducing VOC levels. Exquisitely made up of over 40 different types of plants, the filter is able to reduce the levels of most types of VOCs in the air.

The intricate fusion of plants and technology allows the GWS Living filter to achieve all rounded efficiency acting as both air and VOCs purifier, while integrating the benefits of greenery into the environment. It is a system that is skillfully crafted to embody various types of benefits in one, rendering solutions to modern problems while bringing green to higher levels. ☝️