

affordable. customisable. sustainable. green walls



*Urban Flora offers affordable, customisable and sustainable green walls to revitalise urban areas. We have chosen to tackle SDGs 3 (good health and well-being), 11 (sustainable cities and communities) and 12 (responsible consumption and production).*

## Benefits of Urban Flora walls

Indoor and outdoor green walls offer a wide variety of benefits including:

- **better air quality:** improved oxygen concentration of the air leads to better sleep, overall improved health and reduces the impacts of pollution;
- **increased productivity** of people at work by up to 15%, which is beneficial to companies;
- **space efficiency:** vertical green walls take up less space in crowded urban areas and have a higher density of plants compared to potted houseplants;
- **sound absorption:** green walls act as great sound absorbers to reduce noise, improving quality of life for urban residents;
- **low cost of plants:** the plants are grown from seeds which is cheaper than using mature plants.

## An innovative irrigation system

We have designed an innovative irrigation system comprising of bamboo pipes, which can be easily slotted together. The bamboo is sustainably sourced from SE Asia and offers a low-cost alternative to traditional irrigation systems, which are typically mechanised and very costly. Our design allows the most water-intensive plants to be at the top of the green wall, so they receive the most water, with a trickle-down effect meaning that plants at the bottom will receive less water. The Urban Flora wall is simply filled with water at the top, which then travels down the bamboo pipes. Any excess water exits at the bottom for collection. Further details of the irrigation system can be found in the attached file.

## Sustainable materials

The planter boxes are made of coconut fibre, sourced from small producers in India. Coconut fibre is a waste product of the coconut industry; therefore, our use reduces overall waste and supports the local economy. Coconut fibre is also lightweight, therefore reducing the environmental impact of shipping as well as the cost.

## Customisable walls

Urban Flora offers not only modular panels, allowing each customer to choose the size of the wall they require, but also a choice in plants to suit the needs of each space. Further details of some of the plants on offer can be found on our website. Plants have been carefully selected for their individual properties, such as house-cooling ivy or drought-resistant coneflowers. We offer both indoor and outdoor plants, making Urban Flora walls suitable for a variety of climates and spaces. Wildflowers can also be planted to support bees and other pollinators, who often struggle in urban areas lacking in green space.

## Affordable and hassle-free

Thanks to the help of our finance mentor, we have estimated that the cost to the consumer for a single 0.85 x 1m unit is approximately £55. Target markets will include polluted cities in East, South-East and South Asia, such as Delhi, Xian and Beijing. The Urban Flora walls are designed to be affordable for both indoor and outdoor use, making them suitable for company offices, the exterior of apartment buildings or simply inside your home.

As our bamboo and coconut fibre planter box are sourced close to the target market areas, shipping costs (and carbon footprint) can be reduced. The easy-to-assemble design of the Urban Flora walls reduces the need for bulky packaging and costly shipping fees, as our packaging is recyclable and minimal.

Existing green walls typically cost roughly £650 per square metre, thereby making our solution up to 11x cheaper. Most green walls also require specialist installation and costly maintenance. In comparison, the Urban Flora wall simply requires the bamboo pipes to be slotted together and the planter box to be filled with seeds and soil, then hung from the structure. Modules can be secured together to create stunning green walls of any shape and size.

*Join the plant revolution!*