ECOLOGIC

Zero theory for smart landscaping

PAVITRA SRIPRAKASH

@pavisriprakash

The writer is an architect, urban designer, dancer and chief designer at Shilpa Architects

Size Zero, Net Zero, Zeroscaping! The word Zero is trending and seems to mean something positive for a change. Zeroscaping is phonetically similar to Xeriscaping and refers to landscapes that demand very little water. Both are "water-smart landscaping" approaches and they produce equally attractive outcomes. Landscaping is about making the land surrounding a building or public spaces of cities more aesthetic by integrating ornamental features, art works, water bodies and fountains among others with open paved areas, lawns, trees, shrubs, hedges and flower beds. They buzz with economic life when areas of special interest and activities are designed with comfortable seating along promenades, boardwalks and pavements. Special illumination complimented by sound and light shows at night define the character and use of public areas.

Landscaping outside a house

The flora of India is one of the most diverse in the world because of the wide range of climate, topology and habitat that prevail. There are eight distinct floristic regions: Western Himalayas, Eastern Himalayas, Assam, Indus plain, Ganges plain, Deccan, Malabar & Andamans. The estimate for flowering species is around 16,000 varieties, which together with the 45,000 plant species constitutes six to seven per cent of the global total. The use of plants as a source of medicines has been an integral part of India from Vedic times, and more than 3,000 Indian plants are documented to possess great medicinal potential.

Water is undoubtedly most precious without which there can be no life. But indiscriminate use such as in maintenance of lawns could account for 30-70% of daily water consumption. Native plants are evolved and well adapted to microclimates. Once established, they require very little water besides normal rainfall. So it is common sense to design a new landscape or spruce up an existing garden after checking the water needs of the plants selected. Grouping vegetation optimises watering needs in a garden. Instead of aesthetic layouts, "hydrozone" grouping of plants will determine the water requirements for each zone. So lawns and shrub areas should always be separated into different hydrozones. A few simple tweaks could significantly save water in hot and dry climates where summer irrigation alone far exceeds a household's annual consumption.

Knowing a plant's requirement and avoiding irrigation during the heat of the day conserves water. Larger landscapes use regularly -calibrated irrigation systems to optimise performance. Some countries have 'rated' irrigation systems such as the WaterSense Label, which is equivalent to star ratings of appliances per their energy consumption. It is a water smart strategy to plant grass only where it has a practical function, as they are guzzlers, and even then opt for native species like buffalo grass to minimize water needs.

Other smart landscaping practices include routine replacement of soil, periodic manuring and weeding. They combine to make water-smart landscapes use less of fertilisers, pesticides, and generally slash maintenance costs. Native plants naturally support local fauna and preserve biodiversity. In addition, reducing water directly saves pumping costs which saves energy and impacts greenhouse gas emissions! So whatever be your landscaping intent: "Be Indian, Go native and Save the World"!