Miyawaki Technique

Why in News?

The Prayagraj Municipal Corporation has **developed dense forests** at multiple locations across Prayagraj to provide pure air and promote a healthy atmosphere.

- Using the **Japanese Miyawaki technique**, the corporation **established several oxygen banks** that have now evolved into lush green forests.

Key Points

- **Benefits of the Project:**
  - The initiative **aids in managing industrial waste** and reduces dust, dirt, and foul odours.
  - It significantly improves the city's air quality and **promotes environmental conservation.**
  - Miyawaki forests help reduce **air and water pollution,** prevent **soil erosion**, and enhance biodiversity.
- **Environmental Impact:**
  - These forests lower the temperature difference between day and night during summers.
  - They enhance biodiversity, improve soil fertility, and create habitats for animals and birds.
  - Large forests developed through this technique **reduce temperatures by 4 to 7 degrees Celsius.**
- **Diversity of Species in Miyawaki Forests:**
  - **Fruit-bearing trees:** **Mango**, Mahua, **Neem**, Peepal, **Tamarind**, Amla, and Ber.
  - **Medicinal and ornamental plants:** Tulsi, Brahmi, **Hibiscus**, Kadamba, Bougainvillea, and Jungle Jalebi.
  - **Other species:** Arjuna, Teak, **Sheesham**, Bamboo, Kaner (red and yellow), Tecoma, Kachnar, **Mahogany**, Lemon, and Drumstick (Sahjan).

The Miyawaki Technique

- **About:**
  - Developed by **Japanese botanist Akira Miyawaki in the 1970s**, this method **creates dense forests in limited spaces.**
  - Known as the '**pot plantation method**,' it involves planting native species closely together for rapid growth.
- **Key Features and Benefits:**
  - Plants **grow 10 times faster,** mimicking natural forests with dense plantations.
  - Improves soil quality, biodiversity, and carbon absorption.
  - Effective in urban areas for **transforming polluted and barren lands into green ecosystems.**