



BIODIVERSITY *on The* U.S. Embassy Compound

The U.S. Embassy compound is home to a wide variety of flora, including **1,033 trees**, selected for their sustainability and suitability in Pakistan's climate.



Once the new Chief of Mission Residence was complete, we transplanted all plants, trees, and shrubs from the old Residence.

When building the new Embassy compound, we saved 520 trees and planted **513 new trees** and **2,800 new shrubs**. The compound is also home to **130,000 ground-covering and flowering plants**. Tree varieties on the compound include the Amaltas tree, Silk Floss tree, Crepe Myrtle False Ashoka, Pink Trumpet tree, Black Afara, and various types of palm trees.



In honor of Pakistan's "**Ten Billion Tree Tsunami**," we are planting a **Moringa tree** (*moringa oleifera*) on the Embassy compound in November 2019. Many cultures use the leaves and seeds of Moringa trees for their nutritional and medicinal properties, including in traditional remedies for inflammation, infection, headache, anemia, and fever.



Family: Moringaceae

Species: Moringa oleifera

Characteristics: Hardy, fast-growing, consuming little water and no fertilizer, *Moringa oleifera* thrives in tropical, subtropical and semiarid climates. Moringa trees grow to 32-40 feet with grayish-white bark, mature specimens produce seedpods and yellowish-white flowers. Its leaves constitute a significant source of Vitamin A, Vitamin B, Vitamin C, Beta-carotene, Vitamin K, protein and minerals including potassium, calcium, iron, selenium, magnesium.

Its seeds and their oil are edible and contain high levels of Vitamin C and Vitamin B along with dietary minerals. Many traditional medicines use Moringa leaf powder, which can provide relief from inflammation, anemia, bronchitis, headache, gastrointestinal problems, infections, and fever.

U.S. Environmental Technologies and the U.S. Embassy's "Leadership in Energy and Environmental Design" (LEED) Silver Certification

- The United States is a world leader in growing our economy while reducing emissions, due to innovation, technology breakthroughs, and energy efficiency gains.
- The U.S. Embassy earned a LEED Silver Certification due to the sustainability of its lighting, insulation and climate control systems, building materials, and water and waste management systems.
- Innovations include:
 - Solar lighting on compound exterior (perimeter walls and garden walkways), and LED lighting on compound interior.
 - Dimmers reduce the intensity of lighting with increased daylight or ambient light.
 - Buildings are oriented to optimize energy efficiency, and walls and windows incorporate thermal mass to minimize heat gain and loss to reduce energy consumption.
 - A compact air conditioning system uses smaller compressors that work on demand, with sensors to adjust room temperature depending on the number of occupants in the room.
 - Solar heating for the annex kitchen and saltwater swimming pool.
 - Low flow toilets and waterless urinals; a wastewater treatment plant recycles wastewater for use in irrigation.
 - Weather control stations integrated into the irrigation system to ensure water is used only when necessary.
 - A "Building Automation System" that tracks and optimizes the electrical, energy, water, irrigation, and fuel systems.

The U.S. Embassy's Air Quality Monitoring Program

- Since the U.S. Embassy in Beijing inaugurated the Department of State's first air quality monitor in 2008, dozens of U.S. diplomatic posts around the world have begun to monitor their ambient air quality.
- This Department of State initiative provides American citizens and staff at U.S. Embassies and Consulates the necessary information on air quality to make informed decisions regarding pollution and their health. Policymakers, academics, environmental advocates, and private citizens in many countries use the publicly available data from U.S. monitors for a wide range of research and positive collaborations.
- U.S. Embassy Islamabad, Consulate General Karachi, Consulate General Lahore, and Consulate General Peshawar each installed two U.S. EPA-grade air quality monitors on their compounds in May 2019. These machines monitor local air quality and produce readings ranging from "good," when air quality is satisfactory, to "hazardous," which indicates an air quality emergency.
- Data from the Department of State's Pakistan-based air quality monitors is available on www.AirNow.gov. The monitors also tweet air quality readings every hour via their designated Twitter handles: @Islamabad_Air, @Karachi_Air, @Lahore_Air, and @Peshawar_Air.