

Putrajaya Lake and Wetland, Malaysia



Sources: Perbadanan Putrajaya

Putrajaya is a city planned and built to meet the challenges of the new millennium. It is A City in a Garden that turns to nature for inspiration, resulting in a landscape dominated by the picturesque Putrajaya Lake. A high standard of lake water quality is one of the most important factors for the success of this scenic centerpiece, and the solution was found in simulating yet another gift of nature - with the construction of Putrajaya Wetland.

The 400 hectares Putrajaya Lake was created by inundating the valleys of Sungai Chuau and Sungai Bisa. The construction was started in 1998 and fully completed in 2002. The lake has been primarily designed to enhance the aesthetic appeal of Putrajaya. Located at the southern part of Putrajaya, about 60% of the lake water flow from the wetland and the remaining 40% is the direct discharge from bordering promenade. It is not easy to manage a 400 hectares' lake in the middle of a city. The ecosystem of a man-made lake like the Putrajaya Lake requires regular maintenance. Interestingly, the water here is treated using an environmentally-friendly method. Before the water from the main river and other tributaries enters the lake, it passes through a series of wetland cells that have been built just upstream of the lake (northern area of Putrajaya).

Putrajaya wetland is the first man-made wetland in Malaysia and the largest constructed freshwater wetland in the tropics. The 200 hectares' project resulted in transforming an oil palm site into wetland ecosystem with the help of modern technology and stringent environmental management methods in design and construction. This 200 hectares' wetland area is where the natural filtration process takes place, as the species of wetland plants there act as a "kidney" to eliminate pollutants such as nitrogen and phosphorus. In addition to being a water cleansing and filtration system, the wetland also help in flood mitigation, nature conservation, ecotourism, recreation, research and education and protection against soil erosion.

However, many may not know that in addition to being a recreational spot and ecotourism area, Putrajaya Lake and Wetland has been recognized by UNESCO as an Ecohydrology Demonstration Site, as well as an example of integrated lake basin management under the International Hydrological Programme (IHP), making it one of the only seven operation demonstrations sites of the programme. It is also the only lake in Southeast Asia to hold the position since its selection in 2010.