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## Fascinating Putrajaya Wetlands

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WE will let you in on a little secret. The bouquet presented to Datuk Seri Dr Siti Hasmah Mohd Ali at Friday's launching of the man-made Putrajaya Wetlands was home-grown.

Dr Siti Hasmah had accompanied Prime Minister Datuk Seri Dr Mahathir Mohamad, who officially launched Putrajaya Wetlands - Malaysia's first constructed wetlands and the largest of its kind in the region.

Prior to the event, Putrajaya Corporation officials were mulling over presenting a unique and extra meaningful gift to the Prime Minister's wife.

They wanted to give her something unusual and, preferably, from the wetland surroundings.

Then someone hit upon the idea of using dried flowers and leaves from the wetlands for a bouquet.

That striking detail was revealed by Putrajaya Corporation president Tan Sri Azizan Zainul Abidin himself, who finds that he is continually being surprised by the hidden "wealth" of the Putrajaya Wetlands.

"We pleasantly discovered that the wetlands can also be a source of materials for decorative purposes," says Azizan.

That, in addition to a whole host of other functions.

The wetland environment in Malaysia's newest township comprises Taman Wetlands (138 hectares) and the wetland areas (197ha). It is characterised by both terrestrial and aquatic systems.

The Putrajaya Wetlands were created for a special reason - to improve the not-so-clean upstream inflow into the seven-kilometre man-made Putrajaya Lake (600ha), described as the centrepiece of Malaysia's new administrative capital.

Studies of the Putrajaya catchment - covering parts of the Malaysian Agricultural Research Development Institute, Universiti Putra Malaysia, Palm Garden Golf and Resort and land belonging to Ladang West Country - revealed elements which can have an adverse impact on the Putrajaya Lake water quality.

Instead of the usual wastewater treatment system, the builders of Putrajaya wanted to use wetlands specifically built for the purpose to remove pollutants and to cleanse most of the catchment runoff before it enters Putrajaya Lake.

Wetlands have been described as "the kidneys of the planet" because of their role in cleansing the waters that pass through them of sediments, chemicals and other pollutants.

In many countries, natural or artificial wetlands are being used to treat sewage water, as, for example, the Salt Lakes Swamp in Calcutta.

A constructed wetland is really a water treatment facility.

Duplicating the processes occurring in natural wetlands, constructed wetlands are complex, integrated systems in which water, plants, animals, micro-organisms and sun, soil and air interact to improve water quality.

If properly built, maintained and operated, artificial wetlands can effectively remove many pollutants.

Taman Wetlands is really the gateway to the Putrajaya Wetlands.

At Taman Wetlands, you will find the Visitor Information Centre, the Look-Out Tower, the Nature Interpretation Centre, the Wetland Cafe, a souvenir shop, the Flamingo Pond, an administrative office, a laboratory and a nursery-cum-maintenance yard.

And the president of Putrajaya Corporation is not the only one who is delighting in the wonders of Putrajaya Wetlands.

Since the opening of the wetlands to the public over a year ago, more than 100,000 people have visited the area.

They include groups from schools and institutes of higher learning, tourists, both local and foreign.

But the majority of visitors comprise people from all walks of life and from all over the country "which is what we are aiming at", says Azizan.

"People are simply amazed with what the wetlands have got to offer," he adds.

Here is a place where visitors could have a satisfying day of outing, learn and experience the interesting aspects of nature, soak in the refreshing and invigorating ambience and observe the panoramic view of Putrajaya and its environs from the Look-Out Tower at Taman Wetlands.

As the rising number of visits indicates, the benefits of the Putrajaya Wetlands go beyond getting rid of nutrients such as phosphorus, nitrates and suspended solids.

Says Azizan: "Among other things, the wetlands can be a potential tourist attraction.

"If people are to understand and to love nature, they should be exposed to it and the wetlands in Putrajaya provide a wonderful avenue for doing that."

The Putrajaya Wetlands are the first and, for the moment, the only park in the township open to its resident and the public.

"The wetlands are a park of a different kind," says Putrajaya Corporation director of city planning Jebasingam Issace John.

"They are an ecological entity, set in an urban setting, where people can turn to nature for inspiration, enjoyment and education."

It is significant that the launching of Putrajaya Wetlands coincided with World Wetlands Day which falls on Feb 2 of each year.

"Launching the wetlands on World Wetlands Day underscores the contribution made by Putrajaya and the nation to conserve nature and, in particular this depleting natural resource which is under threat of extinction the world over," says Azizan.

"The Putrajaya Wetlands represent our commitment towards enhancing public awareness of the importance of protecting the natural environment and giving it a proper place in urban development."

After having been depicted for centuries as places full of slimy creatures, harbouring diseases and exhaling pestilence, wetlands are now attaining such a positive reputation that they have got their own day in the calendar to celebrate their existence.

On Feb 2, in 1971, in the Iranian city of Ramsar, a handful of countries signed an international treaty, the Convention on Wetlands, with the purpose of promoting the conservation and sustainable use of these habitats.

Today, 123 countries have signed the treaty and many others are poised to join soon. Malaysia became a contracting party to the convention in 1994.

World Wetlands Day was first celebrated in 1997 and made an encouraging start.

Each year, government agencies, non-governmental organisations and groups of citizens at all levels of the community have taken advantage of the opportunity to undertake actions aimed at raising public awareness of wetland values and benefits in general and the Ramsar Convention in particular.

Wetland ecologists, hydrologists and conservationists, especially waterbird lovers and hunters have all contributed to creating an awareness

of the many values wetlands offer.

Wetlands benefit people and the environment, both locally and globally.

Scientists now recognise that wetlands are among the most productive ecosystems. They are "biological supermarkets" because of the extensive food webs and rich diversity of plants and animals they harbour.

In many wetlands, hunting constitutes an important economic activity. In others, agricultural production, in particular rice, and fisheries constitute the main source of nourishment and income for large numbers of people in many countries.

Wetlands can also act as "nature's civil engineers" by providing an effective system of flood control which prevents rain water from rushing too quickly and too savagely downstream, and by protecting coastal areas from erosion and devastation by sea storms.

Interestingly, World Wetlands Day 2001 happened to be the 30th anniversary of the signing of the convention and marked 30 years of work and progress by the Convention on Wetlands.

This year's theme of Wetland world - A world to discover! fits in very well with the educational objectives assigned to Putrajaya Wetlands.

Aside from educating the public on the myriad uses of wetlands, the experience gained from wetland construction and management forms a good basis for scientific research on this type of ecosystem.

The Putrajaya Wetlands provide specialists with ample opportunities to carry out research into yet-to-be understood processes specific to this type of purpose-built system.

At the same time, Putrajaya Corporation is keen to share the knowledge which it has gathered on artificial wetland construction and management with other countries in the tropics or similar climatic conditions.

"We are collecting data on water quality, plants, aquatic life, among other things. Our experience can contribute to the creation of wetlands all over the world. Indirectly, we will be putting Putrajaya Wetlands on the world map," says Azizan.

The building of Putrajaya Wetlands is an achievement worthy of great praise.

"I think the making of Putrajaya Wetlands is remarkable because it was done in record time and with a lot of care and commitment by the people involved in the project," says Dr Sundari Ramakrishna, director of Wetlands International - Malaysia Programme, the non-governmental organisation which played an advisory role in the design, implementation and maintenance of Phase One of the Putrajaya Wetlands project.

"The wetlands are well designed and constructed. They are well landscaped and the plants were specifically chosen from local areas, they are not exotic invasive species."

Certainly, proper operation and maintenance is crucial to the wetlands' future well-being, a concern Putrajaya Corporation takes seriously.

"We have put in place a high standard of maintenance and management practice for the wetlands," says Azizan.

Future plans include developing Phase Two of Taman Wetlands and people can expect a horse-riding zone, nursery and administrative and research centre at the park.

To further promote the wetlands, Putrajaya Corporation will organise a yearly Putrajaya Wetlands discovery hunt, camping and organised outings, among other activities.

The commitment displayed by Putrajaya Corporation is a happy augury for wetlands conservation in the country and for the biodiversity wealth they nurture.

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