

# Indah Water supports green technology, helps reduce usage of precious potable water



*IWK's CEO Datuk Ir. Abdul Kadir showing YAB Dato' Seri Utama Haji Mohamad Hasan and Encik Abdul Wahab of MPPD the healthy plants that were grown using IWK's green products.*

Indah Water Konsortium Sdn Bhd (IWK) recently signed an MoA with Majlis Perbandaran Port Dickson (MPPD) where MPPD has agreed to use bio-solids and bio-effluent generated from IWK's treatment plant for landscaping purposes in Port Dickson. MPPD is the first Local Authority (LA) in Malaysia to embark on a partnership with IWK to utilise its green by-products. The signing of the MoA was witnessed by the Chief Minister of Negri Sembilan, YAB Dato' Seri Utama Haji Mohamad Hasan, in conjunction with the local authority's "Majlis Pelancaran Sambutan Sedekad MPPD."

As the entity responsible in providing sewerage services, operating and maintaining 5780 public sewage treatment plants, IWK has endeavoured to create marketable green products from the by-products of its core services. The treatment processes will result in products which can be reused for the benefit of the environment – bio-solids (compost fertiliser), bio-effluent (treated water) & biogas.

Bio-solids are produced as a dry end-product from a sewage treatment plant. It is a valuable resource containing high proportions of organic matter and nutrients essential for plant growth. Several studies have been carried out by IWK to characterise bio-solids and measure its efficiencies as a plant nutrient product for non-food crops. One major success from its R&D is the study on bio-solids application for rubber trees in collaboration with Universiti Pertanian Malaysia (UPM). It has shown that the rate of growth is better than those applied with conventional fertilisers and the wood texture is of a better grade.

Bio-effluent is produced at the end cycle of sewage treatment. It is treated to meet the DOE Standard A or B for emission into a body of water or a river. Currently IWK's treatment plants produce approximately 4000MLD of bio-effluent nationwide which is approximately 25% of raw water resources of the nation. Bio-effluent reuse can be categorised into urban, agricultural, environmental, industrial and construction industry reuse.

IWK R&D has conducted several research using bio-solids and bio-effluent carried out in collaboration with institutes such as MARDI, RRIM, UTM, UPM and VAHB. Under its Sustainability Through Zero Waste Management concept, IWK is

sharing the positive uses of bio-solids and bio-effluent with interested green partners.

The agreement with MPPD began with a pilot project to ensure that the local authority will get the best results and to finalise all operational and technical matters until the project is successful. Trial plots were prepared with the assistance of MPPD's Landscaping Unit to compare the effects of bio-solids, commercial fertiliser and control for landscape plants application. After about 10 weeks, the pilot plots exhibited impressive positive outcome for plants applied with bio-solids and bio-effluent from IWK as compared with commercial fertilizers.

MPPD is the first Local Authority to be part of this green initiative, proactively seeking to cut down usage of precious potable water and also achieving cost savings by reducing the use of commercial fertilisers for their landscaping plants. More importantly, this can assist in promoting public health and care for the environment.

The success of this implementation will hopefully allow this project to be extended to the other local authorities in the country in a win-win situation, that is IWK can actively seek revenue to reduce subsidies and operating expenses and the LAs can cut down spending on fertilisers and water. Ultimately, what's more crucial is that in the face of a looming water crisis, usage of potable water for non-potable uses like landscaping can be drastically decreased, thus ensuring adequate potable water supply.

*This article was brought to you by*  
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