

Food for Thought

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Our Water Security is Our Common Future: Do we have one?

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LETTER TO EDITOR - 21st March 2015 (SATURDAY)

Our Water Security is Our Common Future: Do we have one?

World Water Day is celebrated every 22nd March. It is to mark the importance of water particularly to humans. It is part of Decade for Water (2005 - 2015) activity by United Nations. The theme for this year celebration is 'Water and Sustainable Development'. On the last year of Decade for Water, how much have we achieved to plan, manage and protect water that is an important component in our life?

Water is Health

Access to clean, safe and continuous supply of water is vital to ensure our daily activities are uninterrupted. Sanitation needs water too. Availability of pour flush, individual septic tanks and communal septic tanks still poses impact to raw water. A move towards connected sewerage facilities for locations with high population density will be able to prevent pollution to raw water from sewerage as well as harvest the potential resources from sewerage in effective, economic and sustainable manner. Based on 2013 official statistics, Peninsular Malaysia has 4,378 communal septic tank, 1,306,662 individual septic tanks and 894,859 pour flush is still available. As of 2013, Sarawak has 401,564 individual septic tanks and 95 communal septic tanks. This poses high risk of contamination to raw water. Example of an incident that was related to sewerage pollution is high levels of ammonia in Sg Langat last year that caused Cheras 11th Mile and Bukit Tampoi water treatment plants to shut down. Indah Water Konsortium must be restructured under Water Services Industry Act 2006 (WSIA) by this year to begin the sewerage industry revolution. Similarly, Sabah and Sarawak must embrace WSIA in order to improve water services industry in both states.

Water is Nature

Peat fires, water shortage during dry season and flood during rainy season are indications that shows we have failed to strike a balance between development and sustainability. Last year's flood showed us the impact of removing natural barrier and protection, the forest. Land-use is a state matter and any impact due to change in land-use should be sole responsibility of local governments and the state government. Segmentation of forest by keeping a small portion as reserve forest and chop off the rest is already rapidly reducing forest's ability to control local climate. Similarly, protected forest provides raw water continuously for human consumption. Last year's water crisis in Klang Valley is another example of us failing to plan and protect the water catchment areas. With reduction in virgin forest covers, will Malaysia be able to withstand harsher climate pattern or will Malaysia continue to spend Billions of Ringgits to fire-fight after the disaster has taken place?

Water is Urbanisation

Based on latest statistics (2013), Malaysia has 488 water treatment plants with 18,421 million litres per day (MLD) design capacity and producing 15,536 MLD of treated water. In 1983, Malaysia had estimated 32,693 km of pipes laid to supply treated water and in 2013 close to 138, 669 km of pipes are made available to supply water to all categories of consumers. Increasing demand for treated water is a sign of matured civilisation. In 2013, 61.5% of treated water is consumed by domestic consumers. With increasing urban dwellers, the demand for treated water in urban areas will continue to rise. While much focus is given to urban water infrastructure development, the sub-urban and rural areas infrastructures development will be less cost effective. Therefore, AWER urges states that have not embraced WSIA to immediately restructure to ensure a balanced growth and ensuring continuous, safe and reliable supply of treated water to all.

Water is Industry

Total water consumption is basically divided into domestic, industry (including commercial) and agriculture use which uses 17%, 21% and 62% respectively. However, almost 2/3 of treated water is consumed by domestic sector. This is mainly because many industries and agricultural activities draw water directly from nature for their use. At the moment, there is no measure or directive to ensure industries are water efficient. AWER urges a Federal level legal requirement (rules or regulation) to be set to ensure improvement of water efficient practises are encouraged and enforced as well as improved continuously. This will indirectly assist Malaysian industries to develop innovative water efficient technologies and commercialise it both locally as well as internationally.

Water is Energy

As of 31st December 2012, Malaysia has 11.4% or 3,317 MW (MegaWatt) of installed capacity for hydroelectric. Hydroelectric is still the largest portion of renewable energy resource and its carbon footprint is between 6.5 g CO₂ equivalent / kWh (kiloWattHour) for river runoff hydroelectricity generation (mini hydro) to 60 g CO₂ equivalent / kWh for electricity generated from large scale hydroelectric dams. A typical new subcritical coal power plant emits more than 1000 g CO₂ equivalent / kWh. Building large scale hydroelectric dams impose huge social and environmental impact to local communities. A stricter development and resettlement procedures must be developed to ensure hydroelectricity is a more positive solution with minimal social and environmental impact.

Water is Food

Agriculture sector is the sector that uses water from raw material until end product. Similar to industry sector, the agriculture sectors that rely

highly on water should also be assisted to be more water efficient via a water footprint benchmark. Water footprint helps us to determine water consumption for many sectors. This is a better demand management and cross-cutting to all sectors. Through water footprint mechanism, the agriculture sector can be more water efficient and reduce high dependency on water strategically. This will also contribute towards reduction to water pollution significantly. In addition to that, innovative measure can be commercialised.

Water is Equality

While many relate the role of women in water and equality, AWER looks at the bigger picture. Transboundary water as well as forest protection is vital to ensure neighbouring states enjoy continuous development. A raw water quality based raw water tariff should be developed and implemented to ensure the state governments are receiving equitable income by protecting water catchment areas to secure raw water resources including transboundary raw water. AWER sees this as an important milestone to ensure state governments receives continuous income without the need to carry out logging activities or other development projects in water catchment areas. In addition to that, protecting water catchment areas will keep the raw water quality better and reduce cost of treating water which will be translated to equitable and affordable water tariff.

Water is Life, You and Me

What we plan and implement now will chart the future for our children and their descendants. Will we leave a better future for them or will the current generation fulfill its greed? We need to act now. Every minute of delay only will increase the disaster's capacity.

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