

# The looming water crisis in the Northern Region



It is clear that there is a looming water crisis going on in the Northern Region (viz. Perlis, Kedah and Penang). The crisis is a consequence of declining water levels in the dams and rivers which therefore dampen the effective capacity of the overall water supply. The newspapers in particular have rightly been reporting on the issue. Kudos to them for not shirking from playing the role of a watchdog and discharging their social conscience and responsibility.

Yet despite this clear warning, it has been also reported that the National Water Services Commission (Span) has so far refused to accede to the urgent request by the Penang state government to perform cloud seeding. Instead the response was that the latter should ration water supply in the state.

This is a wholly unsatisfactory and indeed complacent attitude coming from the federal agency responsible for water supply in the country. It is hoped that Span does not get into a situation where it had been fiddling while Rome was burning.

Even if the looming water crisis does not turn out to be as worst as expected, it is still the responsibility of Span to ensure the most adequate water supply in the country.

And since the introduction of the Water Services Industry Act (2006) which changed water distribution into a concurrent list under the federal constitution, Span has a further duty to cooperate with the state governments and by inclusion/ extension the relevant water suppliers on matters relating to water supply.

The number one priority of Span now is to work with the relevant federal agencies to execute cloud seeding operations in the Northern Region as the number one priority in the short-term.

It is also hoped that the Penang state government, in order to incorporate future scenarios - due to climate change, for example - into their contingency planning and as part of the diversification and augmentation of sources of water supply in Penang should seek to strategise and plan for the following in integration with the flood management system:

- The construction of (giant) underground water storage tanks and facilities - which protects from vaporisation and provide insulation from heat and therefore allowing for longer or 'perpetual' life span. Ideally, the underground water supply should be stored in and near flood prone areas (perhaps in areas such as Datuk Keramat, Sungai Pinang, Sungai Ara and Bayan Lepas) where e.g., a storm tunnel can also be installed - to divert surface run-offs.
- Perhaps it is high time also that desalination is explored as a means of water supply not only in Penang but the country as well – utilising multi-level ultrafiltration, distillation and reverse osmosis methods - to ensure removal of microbes and salt contents from seawater. Let us learn from the Singapore experience and model here. As a medium-term measure, perhaps the Penang state government can engage both the Public Utilities Board (PUB) and the relevant Singaporean government-linked companies or other private companies to build one seawater treatment plant on island and one on mainland.
- Creation of new water catchment areas (under the ownership of PBAPP) in Seberang Perai Utara - providing shared supply also with the irrigation system for the padi plantations.
- Sourcing of unconfined and confined groundwater and aquifer water through the use of tube-wells which have proven to be cost-effective during the 'height' of the haze crisis last year in Kalimantan. Hence, estates/ plantations, abandoned and undeveloped sites including in the border areas with Kedah and north Perak (and the surrounding areas such as Parit Buntar and the broader Kerian district as well as perhaps in the northern corners of Hulu Perak). This sourcing can take the form of long-term joint ventures between the PBAPP and private companies or ad-hoc arrangements. This source of water can better be channelled to be

portable (and not just made to be potable via the normal treatment process) on trucks carrying water tanks.

- The construction of waterways and canals e.g. in the newer developments within the Bayan Baru and Batu Kawan sub-regions not only for aesthetic reasons but also water security also. When the water levels decline to a certain threshold, then these waterways and canals would be off-limits.
- The continuing necessity of river conservation and rehabilitation.
- The creation of basins, and detention and retention ponds that are linked to the underground water tanks in the industrial (factories, plants) and commercial (shopping malls, campuses zones) - whereby some are under PBAPP whilst others would be under private ownership. The latter could always sell to PBAPP or reduce its water bills (charged at commercial rate).
- The installation of rain water harvesting and the concomitant of storage facilities such as tubs and tanks – whereby excess water at a certain threshold can be sold to water authorities or suppliers analogous to the electricity feed-in tariff. Rain water harvesters ought to be installed in all public housing flats both federal and state. Private developers should also be encouraged (as part of their green building credentials) to either directly install or assist residents in apartments and condominiums in installing these renewable energy mechanisms to store rainwater as an alternative to normal water supply for activities such as gardening and washing vehicles.

It has to be mentioned that the Penang state government under the leadership of Chief Minister YAB Tuan Lim Guan Eng is not here to play someone else's game. Don't play-play (jangan main-main). He has two million lives to care and account for. Penang will survive and go on to greater heights. Majulah Pulau Pinang! Majulah Malaysia!

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