

Averting water crisis in densely populated Malaysian states

There is a water crisis looming in the developed west coast states of Malaysia. Among the solutions put forward are water-transfer through tunnel and tapping of groundwater.

by Dale Ng

Solutions are in the offing to settle the water woes of the more developed densely populated western states of Peninsular Malaysia, which includes Selangor, Kuala Lumpur and Putrajaya. There is a looming, potentially chronic water crisis situation in these more developed west coast states of Malaysia.

Industry sources say, Selangor for one, could encounter a crisis in water supply by 2009 or 2010, unless urgent steps are taken. If the current Non Revenue Water (NRW) levels can be lowered, Selangor would probably be

able to buy another two years before facing crisis levels in water supply, say analysts.

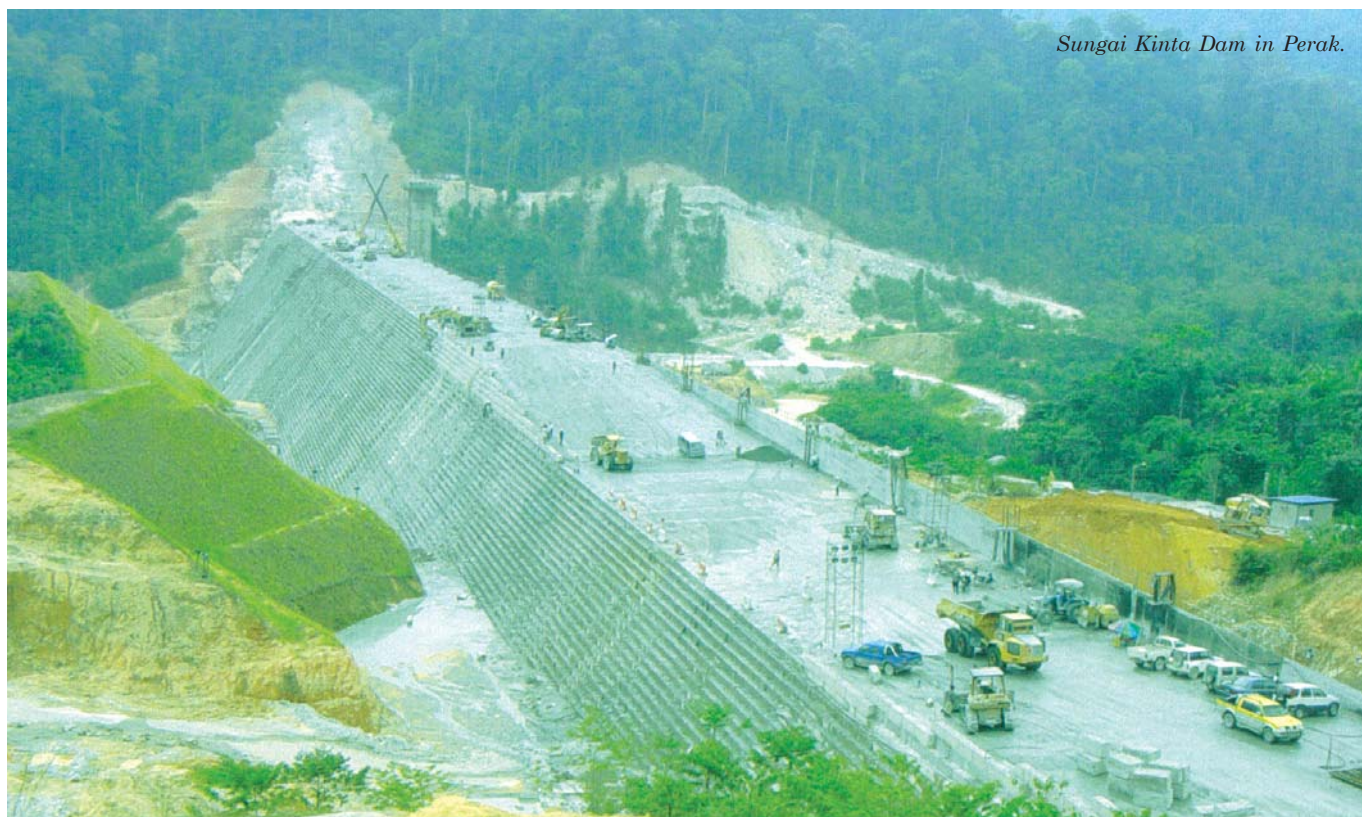
One of the plans mooted to solve the problem is a relatively new idea, which if carried out could provide adequate water for the west coast states by 2009. This is the drawing of water from the massive catchment area of underground water in the Kinta Valley in Perak and piping it to all the states along the water stressed west coast. This would be a novel idea for Malaysia because underground water is hardly utilised in this country.

Corporate conglomerate Sime Darby Berhad and government linked entity Khazanah Berhad are said to be working on the plan to drill 3.5km underground in the Batang Padang area in the Kinta Valley to tap the vast resource of clean, clear underground water.

Industry sources say in this venture, Sime Darby Berhad is expected to participate 50%, Khazanah Berhad 20% and others the remainder. It is said to be a multi-billion ringgit venture funded on a private finance initiative basis which has the support of the Perak state government that is keen to see it through.

This project has the advantage of ease of access of the Kinta Valley without having to cut a tunnel through a mountain or carry out difficult engineering operations. Also there will be no necessity of building a big dam.

The other plan to solve the im-



Sungai Kinta Dam in Perak.



Dr Lim Keng Yaik, Energy Water & Communications Minister.

pending water shortage crisis is the RM3.8 billion (RM3.6 = US\$1) Pahang-Selangor water transfer project. This will transfer raw water from water-rich east coast state of Pahang westwards directly through the Main Range in a 45km tunnel to Selangor where the water will be processed in treatment plants and piped to consumers in Selangor, Kuala Lumpur and Putrajaya.

This project had been planned several years ago. Then at last, in mid-November 2006 the government announced that the tender exercise for this raw water transfer project was expected to be finalised in seven months and work is expected to start by the end of 2007.

Energy, Water and Communications Minister Datuk Seri Dr Lim Keng Yaik said the project would take less than eight years to be completed. He said that there was a delay of over a year but attributed it to finding ways to reduce the cost of the project by RM800 million, including changing ways to appoint consultants and contractors.

Dr Lim had said on November 14,

2006 that he is confident in bringing down the cost to RM3 billion from the estimated cost of RM3.8 billion. He said, "It takes time because consultants are appointed with open international tenders to get the lowest price."

Prior to this, it was a different story. An informal group of consultants and contractors had formed to control the distribution of work in the project, according to sources in the building industry. The project, partially financed by the Japanese Bank for International Cooperation (JBIC), had been criticised by some quarters for pre-determining the project management consultants and builders when the competitive bids for the various jobs have yet to start.

The Edge Daily said industry sources identified local consulting firm SMHB Sdn Bhd and its Japanese partner, Nippon Koei Co Ltd, as the consultants that were chosen to provide detailed engineering design for the project. SMHB-Nippon Koei were the consultants that conducted early feasibility studies and project design.

The online daily added that

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speculation then was that with a consultant already picked for the job, a consortium of Japanese contractors – Kajima Corp, Shimizu Corp and Taisei Corp – would be assured a chunk of the project. At that time, construction industry officials contended that as much as 70% of the job would go to Japanese companies, leaving very little for the local companies like Gamuda, UEM Builders and IJM.

However, since July 2006, there has been a change of circumstances and Dr Lim was reported to have said that his office has appointed independent “watchdog” consulting engineers, German company Fichtner Engineering to watch over the other consultants. This indicated that a different procurement route could have been decided now. Apparently, the minister wants to make the procurement exercise more transparent.

It was also reported that Dr Lim said that six consulting firms had been shortlisted to bid for project management and that the JBIC had no opposition to the list of firms. However, Dr Lim would not name the firms on the shortlist but sources indicated that it is made up of local and foreign consultants and likely includes SMHB. As it is now, the minister has said the tender exercise of the project would be finalised in a matter of months and work on the project is expected to start by the end of 2007 and completed in less than eight years.

Once the project management consultants are appointed, the tender for construction will follow. The bidding for construction will be broken down into three parcels – the dam, the tunnel and the pumping station. More than one bidder may be selected for each parcel but they will be asked to team up under the supervision of the management consultants. Fichtner Engineering who will be the watchdog consulting engineers will audit the work of the management consultants.

This massive water transfer project will be the largest infrastructure construction endeavour under the Ninth Malaysia Plan (2006 – 2010), the latest five-year development plan of the country. The estimated cost of RM 3.8 billion for this project relates only to the 30m high dam, the pumping station and 12km of related pipework, and the 45km tunnel through the

Titiwangsa mountain range to end at Hulu Langat in Selangor.

On the receiving end, storage facilities, treatment plants and an extensive distribution network will have to be built costing an estimated sum of about RM 5 billion. Thus, this will bring the total overall cost of the project to a figure that could well exceed RM 9 billion.

There is a general consensus among members of the local water industry that the project should not be delayed any longer as Selangor is projected to suffer a water crisis by 2009. Once the project is completed, it is expected to meet the water demands of Selangor and Kuala Lumpur up to 2019.

The other solution to the looming water crisis, that is by drawing groundwater from under the Kinta Valley, could also be carried out simultaneously. This project could be funded by private finance and could provide adequate water for the west coast states by 2009, that is, in time to avert the water crisis.

Malaysia is making significant progress in currently setting up the National Water Services Commission. At the moment, the National Water Services Commission Act and the Water Services Industry Act have passed through Parliament and have been

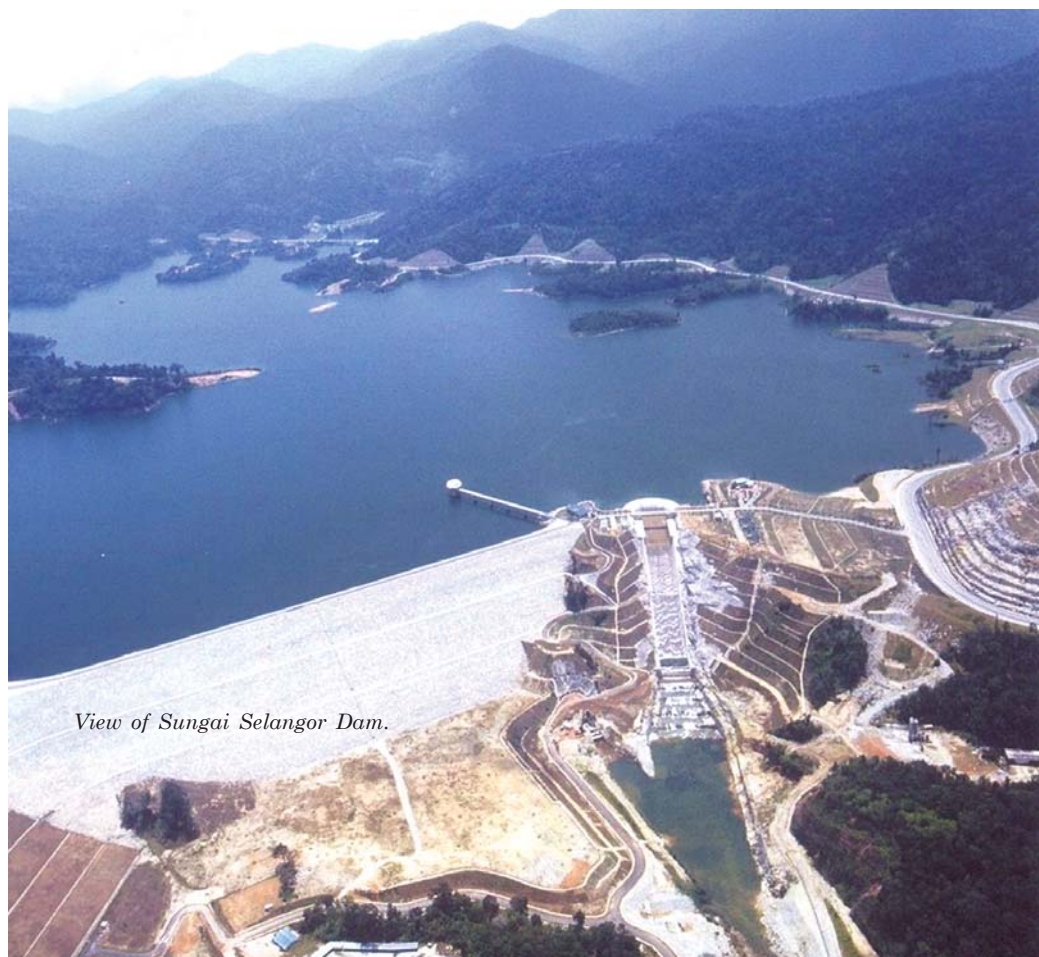
gazetted. They are waiting to be enforced.

Commenting on this in January, President of the Malaysian Water Association (MWA), Dato’ Ir. Syed Muhammad Shahabudin says the MWA understands that there is no delay in the enforcement of National Water Services Commission Act and National Water Services Industry Act which will take place this year (2007).

The minister Dr Lim had said that all state governments are to corporatise their water authorities and that the proposed water commission would serve as the central regulatory body. “There will be no more privatisation as the water operators will be given licences to operate,” the minister said.

He was quoted as saying that the government would still honour concessions signed by Johor and Selangor. Water companies in both states would be allowed to continue with their existing plans if they chose not to migrate to the new regulatory regime under the Water Commission, as long as they adhered to the performance requirements spelt out by the body.

For Malaysia to avert a crisis, it is important to integrate its policies and institutions so that its water resources are used in an efficient and sustainable manner. **AW**



View of Sungai Selangor Dam.