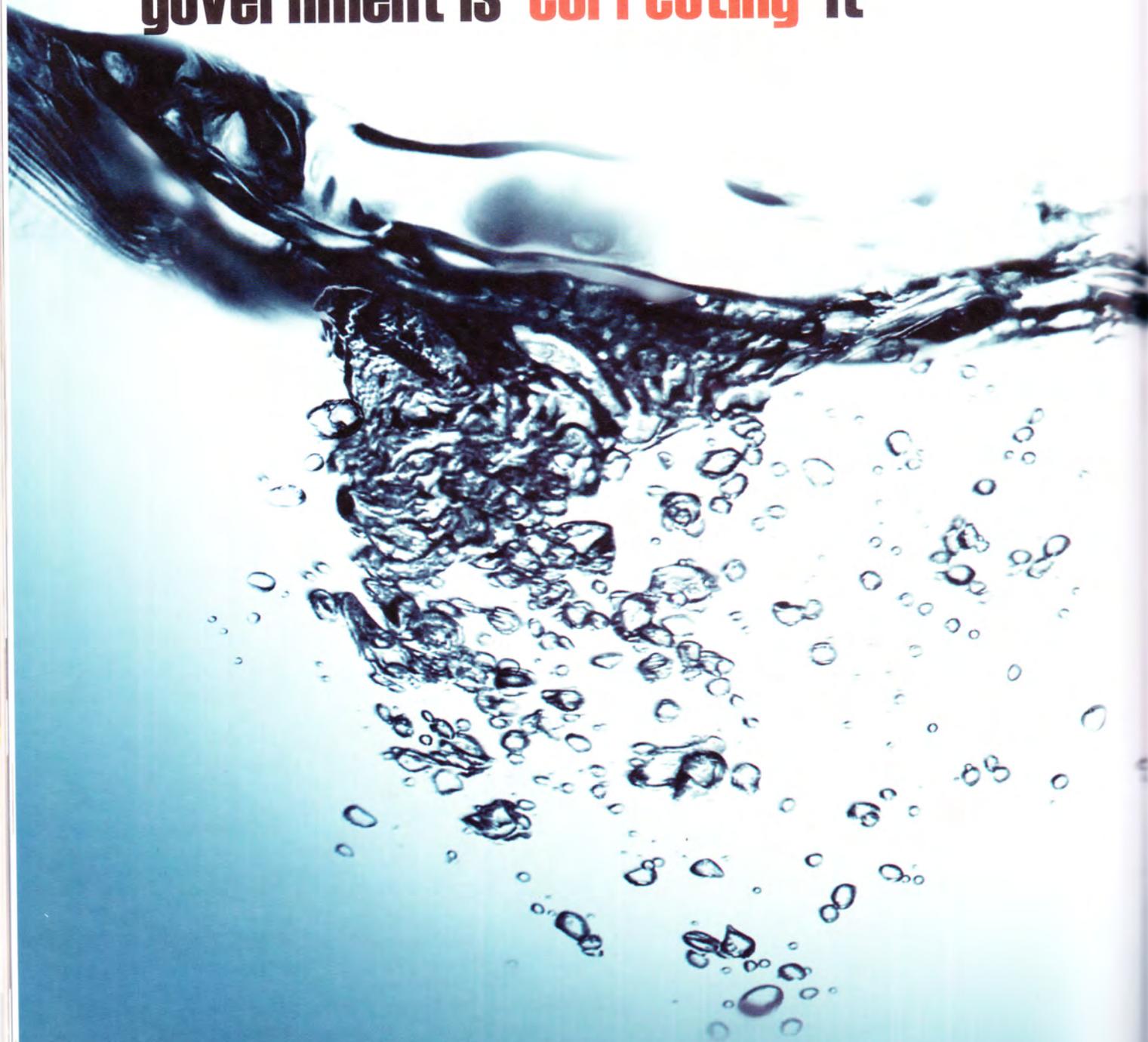


**“Concession agreements  
are a failure, so the federal  
government is ‘correcting’ it”**



The issue of water is a controversial one in the country with political and business implications. **S Piarapakaran**, president of the Association of Water and Energy Research Malaysia (AWER) explains some aspects of the industry, in an exclusive interview with *Public Listed*.

**PL: What is the current state of the water services industry in Malaysia?**

**T**his industry is undergoing a restructuring process led the federal government to ensure a sustainable water services industry. The industry is clustered into three main categories which are water treatment, water supply and sewerage services. We will only focus in water treatment and supply for now. The National Water Services Industry Restructuring (NWSIR) initiative is applicable for Peninsular Malaysia and the Federal Territory of Labuan only. Sabah and Sarawak did not join in the restructuring process.

The NWSIR is supposed to be completed between 2006 and 2010 during the 9th Malaysia Plan. However, there has been serious delays in the restructuring and it is now entering its 2nd year of delay.

**PL: How did we get to where we are now?**

The restructuring is not a new attempt. There were 2 attempts prior to the current one. The restructuring took into consideration two major components, the people (or socio-economic factors) and profit. We need to improve the service quality, supply security, water quality, pipe network coverage and overall industry standard. But, it has to be done in a manner that does not give huge impact to tariff or in other words, a huge tariff hike.

Malaysia referred to the OFWAT (Office of Water Services, United Kingdom) as a reference model for Malaysia's water services industry. This model eventually is derived as our very

own asset-light model. This asset-light model allows water services industry to focus on its core function, which is to treat and supply continuous and reliable treated water. With this model they would not need to worry about funding and building new treatment plants or other huge capital expenditure (capex) works. The capex work will be done via open tender through Pengurusan Aset Air Bhd (PAAB). This model is more efficient than the current method.

Before 2006, state governments controlled the entire water services industry. With increasing population and water resources being polluted, the industry began to carry huge liabilities. The separation of responsibilities between water companies and consumers was also not clear. This has caused more misunderstanding. Therefore, to restructure the national water services industry and to ensure the quality of supplied water is obtained, the federal constitution was amended at the end of 2006 to allow the federal government to have executive power over the treatment and supply of water.

After the amendment, state governments are still responsible for water resources (rivers and water catchment areas). Water treatment and supply has been placed under the federal government. Beyond the water meter, the responsibility is the consumer. Prior to the amendment, if the pipe in front of a consumer's house is broken, the consumer is required to repair it. Now, the responsibility is only after the water meter, just like electricity supply.

The core elements of the NWSIR are an asset-light model, prevention of any type of concession agreement in future, enforcement, full cost recovery as well as reasonable and transparent water tariff.



**PL: What is the total value of the water industry in Malaysia?**

The total revenue of water services industry (including Sabah and Sarawak) in 2010 is RM4.087 billion. In 2000, the total revenue was just RM1.896 billion. This does not include the value of assets in place.

In 2010 we have 458 water treatment plants with 15,098 million litres per day treatment capacity and 131,286 kilometres of pipes. There are pump stations, service reservoirs, balancing reservoirs and many other infrastructures put in place.

It is a huge industry with huge liabilities as well. If not managed wisely, there will be serious damage to the nation.

**PL: With regards to water when did the reform process begin?**

Well, it started with approval of the Suruhanjaya Perkhidmatan Air Negara Act 2006 (SPAN Act) and Water Services Industry Act 2006 (WSIA) by the parliament. Prior to this a series of consultation was conducted with state authorities, rulers and federal authorities. State enactments were amended to allow federal constitution amendments, too. This was also made possible by the approval of the restructuring process by the Majlis Raja-Raja. This means that the rulers have given their consent to NWSIR. Only Sabah and Sarawak has opted out from the process.

Effectively, it all started during the 8th Malaysia Plan (2000 – 2005) and Economic Planning Unit's study on the water industry.

**PL: Which was the first state to revamp**

**its water sector and how is doing now?**

The first state to revamp its water sector is Johor. They entered the WSIA regime after restructuring their water services industry and Syarikat Air Johor (SAJ) being the sole water distributor. After restructuring, Johor water players are now fully allowed to use PAAB's financial assistance. This has long-term benefits for the state via improvement of service quality, reduction of non-revenue water and improving water supply security. However, the full impact can only be seen once all states have entered the WSIA regime. Then a benchmarking mechanism can be introduced and this will make it easier to compare results.

**PL: And which state is lagging behind others and why?**

Kelantan is far behind other water players including Sabah and Sarawak which are doing better. A series of feedback session were held in many parts of Kelantan. Feedbacks were obtained from Kuala Krai, Temangan, Kota Bharu, Machang, Pasir Puteh, Jeli, Bachok, and Tanah Merah by AWER. In this report we have concluded that:

- (i) The water quality of groundwater, river and spring water that is being consumed by Kelantanese is questionable. The continuous deforestation and pollution do give direct impact to these water resources. Therefore, continuous reliability on non-treated water supply imposes health danger to Kelantanese as well as denying their basic human rights to water.
- (ii) Through WSIA model, the Kelantan state government will be able to monitor the performance of Air Kelantan Sdn Bhd (AKSB) through SPAN. This will ensure AKSB's quality of service is uplifted to be on par with other water services operators in Malaysia. Any delay in transferring to WSIA regime will increase the future cost of water services infrastructure development.

**PL: But Selangor takes the limelight. What is at stake and why the crisis mode among the major players.**

There are three components to the problem, the concession holders, state government and federal government. The Selangor government wants full control over the water industry and has locked horns with the concession holders. The federal government has been

somewhat using 'willing buyer, willing seller' sentiment to convince the state government to abide by the law. WSIA is putting a stop to concession agreement which is deemed a wrong move. Prior to 2005, stages of water treatment were privatised via concession agreement to Puncak Niaga Holding Bhd **PUNCAK 6807**, Konsortium Abass Sdn Bhd and Syarikat Pengeluar Air Sungai Selangor Sdn Bhd (SPLASH). In 2005, Syarikat Bekalan Air Selangor Sdn Bhd (Syabas) replaced the failed Perbadanan Urus Air Selangor (PUAS) to manage water supply in Selangor, Kuala Lumpur and Putrajaya via a concession agreement. This step went forward even after numerous attempt by federal government to ask the state government (which was then under Barisan Nasional's rule) to hold their horses.

Now, the Pakatan Rakyat-led state government wants to take full control of the water services in Selangor. Unfortunately, a few concession agreements stand in between them.

**PL: You issued a strong statement that Selangor will face a water crisis in 2014? Will it?**

We have conducted a linear modeling with 1% treated water reserve margin in Selangor (including Kuala Lumpur and Putrajaya). Reserve margin means additional water treatment capacity available compared to current demand. This will allow the treatment plant to cater to any sudden demand increase or unforeseen water shortage.

Our study result concludes that 2014 will see the likely possibility of a water crisis in Selangor, if the demand increase is anything between 2% and 2.5%. If the annual demand increases higher, the crisis might hit Klang Valley earlier.

An example of water supply insecurity can be seen during the last shut down of Semenyih Plant due to raw water pollution. When the supply was resumed, it had to cater to daily demand, storage tanks, services reservoir and the leakages in the system as well. It took between 3 days to a week to fully stabilise the entire water supply system.

A similar situation was also observed in Penang during their plant maintenance in late 2010. These are clear indications of water supply insecurity and a water crisis is just around the corner.

**PL: But Selangor counters that**

**by suggesting constructing more groundwater extraction plants. Wouldn't this help?**

The suggestion to construct more groundwater extraction plants to cater for the deficit in raw water also means that the Selangor state government acknowledges that there is a risk of water crisis. When the cost of constructing many small-scale groundwater treatment plants is compared with the construction of Langat 2 treatment plant, Langat 2 treatment plant is definitely much more cost-effective and reliable.

Groundwater extraction also comes with many other environmental impact such as land subsidence, hydraulic cracks, drop of water tables and instability of ecosystem, etc.

Furthermore, groundwater solution might not work during a water crisis due to drought. For example, during the water crisis in Labuan, groundwater solution was implemented and unfortunately it was a failure. This was carried out by a subsidiary of Sime Darby Bhd **SIME 4197**. A similar trend was also noticed during a bad drought in Kelantan.

It takes rain to fill up groundwater; we call this recharge process in engineering. This is the basics of water cycle in a tropical rainforest climate.

**PL: So what is the status of the water pipeline from Pahang to Selangor?**

The water tunnel project from Pahang to Selangor is moving according to schedule and it needs to be connected to a dam and a water treatment plant. These are the last two missing pieces.

**PL: So the government formed the Suruhanjaya Perkhidmatan Air Negara. How effective has this been?**

It's hard to evaluate the National Water Services Commission's (SPAN) performance as there is no direct mechanism to measure. But based on our scale, SPAN has not delivered the following:

- (i) a transparent tariff-setting mechanism
  - (ii) NWSIR is not completed yet
  - (iii) high level of NRW and there is no national action plan for reducing it
- That means that SPAN is still far away from its targets.

**PL: Why does the government want**

### **back the state's water asset when it had earlier placed it under private hands?**

We have to be specific; the federal government is 'upgrading' the water services industry that was left in the hands of state governments. Till today, the liabilities in water services industry are ever increasing. This has deterred many water infrastructure and technology development which are needed for the future generation. This will burden coming generations if left unresolved.

The asset-light model and full cost recovery approach together will protect the people's well being and ensure water supply security (a component of national security) is achieved. Concession agreements are a failure so that's why the federal government is 'correcting' this.

### **PL: So which government body handles all matters related to water in the country?**

There is no one body that handles it. The Department of Irrigation and Drainage, Ministry of Health, SPAN, Ministry of Energy Green Technology and Water, Ministry of Agriculture, state governments, and few more are players in this sector. AWER will work towards unifying them, but for now, the NWSIR is priority. We need to ensure that water security is achieved.

### **PL: Massive loss of water still continues, why is this so?**

Non-revenue water (NRW) is treated water that does not bring any revenue to the utility supplier. This includes inaccuracy in meter reading, water theft and the biggest culprit of all, leakages in the piping system. Stricter NRW key performance indicator (KPI) for water operators and SPAN are needed. A reduction in NRW will reduce water treatment and supply cost which will directly help in achieving an equitable tariff for consumers and businesses.

### **PL: What is the value of water losses during the last, say, 3 years?**

The sum of estimated revenue loss due to NRW for the year 2008, 2009 and 2010 is a staggering RM4.99 billion. This is a conservative calculation using the lowest average tariff by state.

### **PL: Why have Sarawak & Sabah left out in the restructuring exercise?**

The current NWSIR is the third attempt, the first two failed even at the negotiation table. The reasons are unclear but, both states must come forward to join the NWSIR to ensure a sustainable water services sector is established there.

### **PL: What will the implications be for its people?**

The need to develop almost 40% additional water services infrastructure to cater the demand in rural areas will require a lot of investment. High capex is needed to have wider water supply services coverage. Therefore, Sabah and Sarawak needs to implement an asset-light model so that both states to have a good outreach of water services and improve the water quality. The people of Sabah and Sarawak have the right to continuous, safe and reliable water supply with service quality that are same to other states. This cannot be denied.

### **PL: Penang, Johor, Perlis, Melaka and Negeri Sembilan have agreed to cede control of water services to the federal government? Why haven't the other states agreed?**

It is the fear that federal government will take over the water industry. SPAN is a regulator and they have no financial stake in the industry. PAAB is temporary asset owner until the liabilities are paid off via leasing fees. So, maybe the states now fear that the real owners become smarter and demand more. But who are the real owners? It simply you and me, we pay the tariff so we collectively own it. The state governments are caretakers of these assets. Really there should not be any more delays!

### **PL: What is the impact of climate change on the water situation in Malaysia?**

There are those who blame climate change for their own failure. You can't simply blame climate change if you fail to plan. Climate change takes place due to our own greed in destroying nature. It is like when our body has fever when we have an infection. It is only natural for the earth to adapt to changes in its surroundings. Climate change cannot be stopped, it will continue until a new

equilibrium is achieved.

Unfortunately, the adaptation process includes heavy downpours as well as prolonged drought for us in Malaysia. It will add more stress to the current water situation. But, via NWSIR and technology enhancement, we can be better prepared for any impact.

### **PL: Why is our water still of poor quality?**

Water quality is poor due to old pipes that rust, high leakages that allows dirt to enter the piping system and also lack of maintenance of piping systems beyond the water meter. It is a collective problem. So, reduction of NRW, old pipe replacement and improving regulatory framework via NWSIR will be things that need to be done to improve the quality of treated water.

### **PL: What is the implication of poor quality of water and water supply insecurity to foreign investors like food and drink manufacturers such as Nestlé (M) Bhd NESTLE 4707 and Frase & Neave Holdings Bhd F&N 3689?**

For the manufacturers especially food related, the operational cost will increase. The treated water quality has direct impact to their operation. But, a water crisis is something they do not want to encounter as its impact is far greater than the water quality itself.

### **PL: Are politics and business interests the root cause of the nation's water industry being in a mess?**

Yes, you can say that. We need to remove both out of the water services industry. It has to be transparent and independent. It is the basic right of human beings, so I would say that playing with it is a sin.

As I always say, I would the most proudest person in the world if our water tariff is the lowest in the world, with the most efficient water usage pattern, best water services industry sector infrastructure and a continuous water supply.

NWSIR is key. We need to ensure it is implemented correctly and timely. We want to see Malaysia as a role model to the world in the water services sector.

• • •