

Clearing the air

INTERVIEW WITH DR SARAH LIAO JP

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SARAH LIAO

earned her Bachelor's degree in Chemistry and Botany, her Master's degree in Inorganic Chemistry and her Doctorate in Environmental/Occupational Health from the University of Hong Kong. She also holds a Master's degree in Analytical Chemistry from the University of Birmingham, UK. A dedicated environmental scientist/engineer, Dr Liao's career in environmental protection began in 1976 when she supervised the first government-funded annual air-monitoring project. In 2001, Dr Liao was appointed environmental expert for the Beijing 2008 Olympic Games Bid Committee and assumed her current position in 2002.

Hong Kong is renowned for constantly reclaiming, rebuilding and reinventing itself, but there seem to be even more large-scale projects on the drawing board at the moment than usual. Why the current burst of activity?

I don't think it's a sudden burst as such. We have a five-year programme worth HK\$147 billion, which works out at about HK\$29 billion per year, and I've been trying to keep up with that spending. Construction projects tend to take longer than a year to complete, so it kind of cascades from one year to another, but on the whole we try to maintain that volume of public works. Infrastructure projects will always pay off at the end of the day if you plan them well.

What you are seeing now are more "sexy" projects such as the new government complex at Tamar, which has aroused a great deal of debate simply because of its location. It's a prime site, we haven't had such a large piece of land in Central for a long time and people have a great deal of expectation of it. A lot of people think we should simply turn it into a Hong Kong version of Hyde Park, but that's a high price to pay and a lot of other people don't agree with that idea, so that's why it's been controversial.

And then of course there are the cross-boundary projects such as the Shenzhen Western Corridor, which connects the western part of Shenzhen to the Deep Bay area of Hong Kong. This is a 5.7 km bridge that would offer us a fourth crossing into the Mainland, and will consist of a three-lane highway in each direction, so it will be very different from the current "make-do" crossing at Lok Ma Chau. The smooth flow of people and goods is very important for Hong Kong to maintain its position as a trading and logistics hub, and for that bridge we actually have our customs inspection and immigration at the other end, on an artificial island. It saves a lot of time – we simply cross the bridge as if we were still in Hong Kong territory.

Then we have the Hong Kong-Zhuhai-Macau Bridge, where we are now in the final stages of the negotiation process. The main problems have been solved, such as the landing points; there's an artificial island right on their border, so it is common ground for the two of them, while our end will land on Lantau island, by the airport. We have done the feasibility study and hope to start the tendering process soon.

How significant an economic impact do you expect the bridge to have, both on the immediate Pearl River Delta and beyond?

We've done a feasibility study on this and we believe that if the economists are right, once this link to the west is built it will balance the existing development on the eastern side of the Pearl River on the western side, where you actually have very large populations, although it's still quite a rural community.

Zhuhai is designated a Garden City and has a very low population density for a city of its size. We don't want to build every city into a global factory and Zhuhai has done pretty well in looking after its environment, so we are confident that any further development can be planned in such a way so as to cause minimum environmental impact. And as it develops to the west, it can act as a model for the sustainable development of the region.

Studies have been carried out by MIT (Massachusetts Institute of Technology) and others on the model of Hong Kong and Shenzhen, because Shenzhen and Zhuhai had the same status as what they call Special Economic Zones but their rates of development have been very different. And one of the conclusions drawn by most researchers is that the part that had direct access from Hong Kong by road has developed much faster than those parts which did not. So by providing this link – and having learned the hard lessons of the past – I think we will have much better planned development that will look after the environment as well as economic and social development. And I want to make sure that will happen.

Will the bridge not have an adverse environmental impact on the protected marine environment off the coast of Lantau?

I think it will have a very minimal impact. We have done some preliminary studies, although of course we will be waiting for the results of the detailed environmental impact assessment. We have chosen the route with the least possible impact, just touching the headland and then going into the artificial part of the island, and then as far as the other end is concerned, it will be a tunnel and then a trestle bridge. So we're trying to minimise the impact on the environment, although of course any economic activity is going to have an impact of some sort.

Most people would like to preserve whatever pristine or natural environment we have and I don't dispute that, but we also need the bridge for the sustainable development of Hong Kong. And in the case of the artificial island that was created to house the airport, for example, we have done very well in maintaining – and even improving – the environment for our pink dolphins. We have a programme to monitor their wellbeing and whether their numbers are diminishing or increasing, and we are actually seeing an increase in the population.

Hong Kong's "fragrant harbour" has been progressively diminished by decades of land reclamation. Is there not a point beyond which further reclamation would be deemed unsustainable?

Actually, yes, there is a red line beyond which we will not go. The government has publicly announced that there will be no more reclamation after the current phase of the Central reclamation is completed, so that's it as far as the Central part of the harbour is concerned. We still need to do a little bit on the Wanchai side, however, so as to connect the bypass road all the way to the west.

The roads had to be built to relieve congestion around Central and there was a lot of discussion in 1998, during which 89 objections were raised to the scheme. As a result, the government actually reduced the size of the reclamation, thank goodness. I was one of those who objected; they were literally going to smooth out the entire coastline and make it like a river, so fortunately that was disallowed.

Hong Kong's air quality has deteriorated noticeably in recent years, due in part to pollution emanating from factories in neighbouring Guangdong. What is the government doing to address this problem?

When Hong Kong Disneyland opened in September the air pollution was terrible and although it might sound strange I was actually very pleased, because it meant that all the dignitaries who had turned out for the opening got to experience what the ordinary people of Hong Kong have to put up with on a regular basis. So I thought: good – I'm going to get my budget! And in fact it did raise the awareness of our Chief Executive, so that particular cloud really did have a silver lining.

We have done a lot since the year 2000, I would say, to deal with this issue. By 1997 we were already experiencing the full blast of terrible air quality in the region, for a number of reasons: the astronomical growth in Guangdong, the shortage of power supply and the consequent rise in the use of fossil fuels, for example. All these factors came together in '97/'98 and it was terrible. And then over the past few years, when eco-

nomic activity in Hong Kong actually decreased, we had fewer cars and less traffic congestion and yet the air quality was still getting worse, so people began to realise how much influence the regional effect has on us.

But of course it's not just regional; our own power plants have actually been using more coal, and the impact from our own plants is much more intense because it doesn't go through the dispersion process. It's right there on your doorstep; it blows right in your face. We have been trying to get CLP and Hongkong Electric to do something about it and our Chief Executive has agreed that appropriate legislative action needs to be taken.

What progress have you made in discussions with your Mainland counterparts on this issue?

Well, we have an agreement with Guangdong that they will complete all the necessary flue gas desulphurisation, build sufficient natural gas-fired power plants to meet the demand and adopt a sustainable vehicle and public transport infrastructure policy by 2010. They realise that they cannot sustain the rate of growth in the number of cars that they have had over the past few years, and in four years' time they will leapfrog their emissions standards from pre-Euro to Euro 2. That's a big jump, because the amount of emissions of a pre-Euro car is twenty times that of a Euro 2 vehicle, so they will be able to add a huge number of new vehicles without increasing the actual emission quantity. That sort of transport policy is helping, but the power plant policy takes time to implement, to carry out the de-sulphurisation, install electrostatic precipitators and so on.

We also recently set up sixteen monitoring stations throughout the Pearl River Delta, including three in Hong Kong. They are all continuous monitoring stations, with fixed emission probes attached to telephone lines, which makes it possible for us in Hong Kong to get real-time information online on what they are doing. We are testing the system now and we have a verbal agreement that this will become public information by the end of the year, so everybody in Hong Kong will be able to see what's happening across the entire Pearl River Delta.

Ironically, we've actually had less success here in Hong Kong in getting our own power companies to clean up their act, although we do now have the power, as the Chief Executive said in his policy address; we have the Specified Process Licence, and every year we're going to tighten it. We have actually imposed an emissions cap on them this year, which we've never done before, so unless they reduce their emissions, they're not allowed to build any new plants. But if they can meet the emission cap then there's no argument. **F**

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