

Singapore Government **MEDIA RELEASE**

SPEECH BY DR YAACOB IBRAHIM, MINISTER FOR THE ENVIRONMENT AND WATER RESOURCES, AT THE COMMITTEE OF SUPPLY DEBATE 2005 - PART 1, 8 MARCH 2005, 2.45 PM

PART 1:

I would like to thank Dr Amy Khor, our new GPC chairman, and the other members for the various questions and suggestions. Indeed, my Ministry is committed towards building on past successes to further improve the management of Singapore's environment and water resources.

Environmental Sustainability

2 Dr Amy Khor and several other MPs alluded to how well Singapore has progressed in terms of our environment. Indeed, we have done well as a nation. Looking back over 40 years of nation building, our environmental achievements to date are no mean feat.

3 Today, Singapore is 100% seweraged, with all used water collected and treated. Proper waste management facilities and systems have been put in place. Singapore is recognised by the World Health Organisation as being free from malaria. We are indeed clean and green.

4 We could not have done all this alone. Over the years, many groups and civic-minded individuals have worked hand-in-hand with us and other government agencies to engender pride in our environment and promote the message of keeping our environment clean.

5 Through these meticulous, collective and continuous efforts, our environment became and has remained a key factor in making Singapore an attractive place to live, work and play.

6 Mr Chairman, sometimes, being away from Singapore makes one appreciate more of what we have here. In a letter to the Business Times in December last year, one Ms Vanessa Ng, now living in a small town about 90 minutes from London, wrote about the little things that she missed. I would like to highlight two things worthy of mention. She missed having her rubbish collected daily. Where she now lives, her rubbish is collected once in two weeks. Once, she didn't bring out her rubbish on a collection day, and had to tolerate the smell and flies for a month. She also misses the neighbourhood wet market. She has to travel miles to a supermarket to get her marketing done but there she cannot get meat cut to the size she wants, or fish cleaned and scaled so that she can cook it readily. She misses the efficiency, service and convenience.

7 Having reached here, we must not rest on our laurels. Having reached the base camp of environmental performance, we must continue pushing towards environmental sustainability as our next peak. Going beyond just keeping Singapore clean when we are reminded to, we want every Singaporean to feel for and care for our environment. This is not beyond us and in fact this behaviour is already of 'export quality' – indeed I have been told by the Saudi authorities that Singaporeans are the cleanest lot there. Our Haj pilgrims never fail to bag their rubbish and dispose of them at the right places.

8 Last year, we released the first Clean Card to inform the public about how our environment is

faring and what more we can do to make it better. We have just updated the Clean Card and we will make this available to schools, community clubs and public libraries. We have also put together Singapore's first State of the Environment report. The report is a handy yet comprehensive account of Singapore's environmental challenges, strategies and performance towards environmental sustainability. Let me now highlight some of the key achievements.

Clean Land & Public Health

9 All households continue to enjoy daily refuse collection services, now provided entirely by private companies appointed by NEA. Last year, we incinerated 2.26 million tonnes of rubbish. On a daily basis, this works out to 6,200 tonnes or 880 truck-loads of refuse every day!

10 The good news is that the amount of waste we are incinerating is declining, from 2.31 million tonnes in 2003 to 2.26 million tonnes last year. The overall recycling rate is up. It now stands at 48% up from 40% in 2000. We are seeing greater participation

- from schools (up from 30% in 2003 to 50% in 2004),
- households (up from 45% in 2003 to 54% in 2004) and
- condominiums (up from 20% in 2003 to 34% in Jan 2005).

All 21 JTC flatted factory industrial estates in Singapore now have a waste recycling programme, and NEA is working on extending the collective recycling system to other smaller factories and workshops. In all, these efforts have helped cut down on the waste going into our landfill and extend the Semakau Landfill's expected lifespan by another 10 years to 2040! Going forward, we are targeting for 80% of schools to have recycling programmes by the end of this year, up from the current 50%. We are also piloting a regional recycling scheme to serve clusters of private condominiums and apartments to encourage even more people to recycle their waste.

11 More restaurants and foodstalls have attained the "A" grade. Foodcourt management have also been playing a more active role in getting their stallholders to attain and maintain the "A" grade. We now have 52 foodcourts in the "Straight As" list, up from 39 in 2003.

Air Quality

12 The air we breathe is clean. Going by the Pollutants Standards Index, or PSI, our air quality was in the 'Good' range for 88% of days last year. The remaining days were in the 'Moderate' range.

13 We are well within international standards in controlling most of the air pollutants. However, like many other urban cities, we have yet to meet PM2.5 standards. Introducing Euro IV standards next year will help us address this issue.

14 Mr Steve Chia suggested that we introduce an hourly PSI reading and indicate the time of day when the highest PSI reading is taken. I would like to inform Mr Chia that NEA already has a system for reporting PSI readings hourly. This system is activated automatically when the daily 24-hour PSI reading exceeds 65, which is when hazy conditions become perceptible over prolonged periods of the day. For example, when PSI hit 66 in June last year, the reporting of PSI readings at hourly intervals was automatically activated. The daily PSI readings already take into consideration the highest pollutant reading within the 24 hour period.

15 Although PSI readings have crossed into the “moderate” air quality range during the recent dry spell as a result of some localised bush fires, the highest daily PSI reading during this dry spell was only 56. NEA will continue to monitor the situation, and initiate the reporting of PSI readings at hourly intervals when the 24-hour PSI reading exceeds 65.

Water Resources

16 Dr Ong asked whether we have enough water in future and whether our taps will run dry. I would like to assure him and this House that we have and will continue to have an adequate supply of water for all our needs. Our programme to increase our local water sources is on track.

17 The yield from our existing reservoirs will be increased with the completion of the Reservoir Integration Scheme in mid-2006. By 2009, our local catchment area will increase from half to two-thirds of Singapore’s land surface with the completion of other reservoir schemes, including the Marina Reservoir.

18 Dr Ong also asked what we are doing to ensure that water in the future Marina Reservoir is kept clean. With the availability of advanced water treatment technology, the quality of water in the Marina Reservoir is less of a concern. Nonetheless, we would want to keep the water clean and aesthetic so that Singaporeans can also enjoy and participate in recreational activities in the waters. A multi-agency steering committee has been formed to help ensure this, for example, by ensuring that proper pollution control and safety measures are undertaken for activities such as non-motorised boating, water taxis, duck tours and river cruises.

19 Our third tap – NEWater – has been turned on since 2003 and we now have 3 NEWater plants with a total supply of 20 mgd (million gallons per day) of NEWater. Another plant in Ulu Pandan is on the way and when completed in end 2006, will be our largest plant with a capacity of 25 mgd of NEWater. Our target is to increase the Direct Non-Potable Use of NEWater to 55 mgd or 15% of total Singapore’s water demand by 2011.

20 Our 4th tap – desalinated water – is set to come on stream this year. With these diversified sources in place, we have sufficient capacity to make up for the loss of the water supply under the 1961 Agreement and are well placed to meet our future water needs. If need be, Singapore can be self-sufficient beyond 2061.

21 An integral part of the water loop is the Deep Tunnel Sewerage System. This system allows us to channel used water to Water Reclamation Plants and then on to NEWater factories, thus allowing us to “close the water loop”. A/Prof Low was concerned that the possible introduction of foreign materials into the deep tunnel sewers could pose a potential security risk in the production of NEWater. Let me take this opportunity to allay his fear.

22 As the 48 km deep tunnel is an extension of the existing 3100 km gravity sewers, the potential risks are no different from the current risk. Due to the greater dilution effect of the deep sewers, a large amount and continuous dosage of contaminants would be needed to affect the downstream process. Even if contaminants get in, the used water will first be treated by PUB to international standards before the effluent is discharged or used as feedstock in our NEWater factories. The NEWater process itself is very stringent where all contaminants are removed through a 3-stage process. As a further safeguard, a comprehensive online monitoring system ensures that the NEWater supplied for use is always of high quality, meeting the World Health Organisation and US Environmental Protection Agency drinking water guidelines and standards.

23 Such comprehensive measures ensure that NEWater supply meets the high standards of water

quality and will be free of contaminants.

Community Participation and Ownership

Fostering Greater Community Involvement

24 We must continue to build on our existing partnerships. To this end, civic and community groups play an important part in helping to foster shared ownership of our environment. Indeed, I am happy to see that there have been more community-driven efforts that promote a greater sense of personal and shared responsibilities towards our environment.

25 The “Make Singapore Sparkle” Programme that Mdm Phua mentioned encourages residents to keep the environment and public toilets clean. Last year, South-West CDC jointly organized the Clean & Green Week launch event with NEA, making it the first community group to do so. Recently, both the North-East CDC and South-East CDC have also organised dengue prevention workshops in their respective districts. The strong support of our community groups has given good results in some areas. For example, greater participation in recycling has contributed towards a drop in the amount of waste disposed. We hope that we could also reap similar benefits in our joint battle against the dengue scourge.

26 The community’s efforts are also important in helping us close the water loop. Conserving water and caring for our waterways and water catchments requires the cooperation of all. On a per capita domestic basis, our water consumption has dropped from 165 litres/day in previous years to 162 litres/day in 2004. This is good but we can do better. Our target is to reduce this to 160 litres/day by 2007.

27 This target is achievable if each of us takes ownership of our water consumption and adopts water conservation habits. Some 190,000 households in 54 constituencies have made a start by installing water saving devices in their homes under the Water Efficient Homes programme. They have seen savings of up to 5% of their monthly water consumption. About 500 building owners have also achieved similar water savings under the Water Efficient Buildings programme. PUB intends to reach out to another 120,000 households and 200 building owners this year.

28 Our interest groups and NGOs have also been active in helping to engage the community. For example, the Restroom Association of Singapore (RAS) has launched the “Happy Toilet” rating scheme to encourage building management to achieve high standards of cleanliness for their public toilets.

29 Another commendable example is the Waterways Watch Society (WWS). On a Sunday morning last month, they took me on their small patrol boat up and down the Singapore River, and showed me how they picked up flotsam and other rubbish in the water. They have been doing so almost every Sunday in the Kallang Basin and Singapore River area. WWS also gives presentations to schools and conducts beach clean ups to reach out to more people and cultivate the spirit of “keeping our waterways clean”.

30 My Ministry will continue therefore to work closely with the CDCs, Town Councils and CCCs to sustain various public outreach efforts such as the Rat Attack, Mozzie Attack and other community programmes initiated under the banner of the Singapore’s OK campaign. We are quite comfortable with the current structure, we don’t see the need for us to put everything together but certainly if there are synergies to collaborate, to streamline, we will do so. In support of the CDCs and CCCs in these efforts, we will provide appropriate funding support, which could amount to \$250,000 for all the CDCs and another \$420,000 for all the CCCs. In addition, over the next twelve months,

PUB will provide S\$1 million towards its 3P – or people, public, private sectors – partnership programmes to engage more Singaporeans to appreciate, value and take ownership of our water resources. This is on top of the existing \$1 million 3P Partnership fund that NEA has set aside to help support the various 3P initiatives.

31 My Ministry continues to involve interest groups through various environmental events and activities such as Environmental Education Advisors Workshops, and Clean & Green Week activities. NEA is currently working with the Singapore Environment Council (SEC) and CASE on increasing public awareness on the Energy Efficiency Labelling scheme for air-conditioners and refrigerators.

32 Through such collective public outreach efforts, we hope to get everyone involved – happy to do their part in keeping our environment clean and sustainable, and to conserve and value our water resources.

Enjoying Our Environment and Water Resources

33 Besides collective community efforts, we want people to feel that they have a personal stake in keeping the environment clean and beautiful. To this end, we will create more opportunities for the community to enjoy and appreciate our environment and water resources.

34 This is reflected in PUB's new tagline "Water For All: Conserve, Value, Enjoy", which sums up our new approach in encouraging Singaporeans to build a closer relationship with water and in so doing, learn to appreciate and treasure this precious resource.

35 We have taken a cautious but proactive approach in our efforts to open up the reservoirs for more recreational activities. As a start, we have encouraged mainly organized groups, like schools, the national sports associations and clubs to conduct their training and events in our reservoirs. Moving forward, and as these prove successful, we intend to progressively introduce more recreational activities in our reservoirs and encourage more groups of people to participate in these activities.

36 Members in the House may be pleased to note that there are plans to open up facilities for walk-in members of the public. For example, PUB is working with the Singapore Canoe Federation to start a kayaking centre in MacRitchie Reservoir. The centre, expected to be launched later this month, will not only cater to school and national training but will offer rental of kayaks for members of the public. As we anticipate a high level of interest from the public, there are plans to open up similar centres for kayaking and sailing at other reservoirs, such as Bedok Reservoir.

37 Prof Png mentioned that we should ensure that the opening of the reservoirs benefit the general public and not only exclusive groups. I agree with him and would like to reassure him that this has always been our intention. Let me cite the case of Seletar Country Club. PUB has imposed a condition that the sailing and kayaking facilities put in place and operated by the Club will be made available for organised groups of the public. Hence, there is no need to join the Club to enjoy the facilities. For example, in the recent Speed Crossing event, which was jointly organized by Seletar Country Club and the Boardsailing Association of Singapore, more than 100 local and regional windsurfers, most of them in their teens, took part in a race across Lower Seletar Reservoir.

38 In fact, we have been very encouraged by the interest and positive support shown by the public for our initiative to open up the reservoirs. In a public consultation last year, about 80% of the 2,000 plus public feedback supported PUB's proposed plans to open up the Bedok and MacRitchie

reservoirs for more recreational activities.

39 As we open up the reservoirs, we should be concerned that reservoirs have their own unique characteristics. PUB has formed the Water Network comprising members from the 3P sectors to serve as a sounding board to ensure that the activities introduced would keep to the unique character of the reservoir. So for some reservoirs like MacRitchie where residents and visitors prefer the serenity and quiet surroundings, activities would be more subdued, such as fishing and canoeing, in keeping with the character of the place. In contrast, more active recreational activities like wakeboarding and dragon boating would be introduced in the more urban reservoirs such as Bedok.

40 Besides the reservoirs, we are also looking at opening up the Pulau Semakau landfill for selected recreational activities. Many people picture a landfill as a dirty and smelly place. This is not the case with Semakau Landfill. Semakau Landfill today has a pleasant environment as a result of environmental and conservation measures taken by the NEA. For example, the mangroves on Pulau Semakau were conserved while new mangroves were planted to replace those affected by the construction of the landfill. Biodiversity surveys conducted on the island also revealed a significant variety of flora and fauna. These include a species of seagrass found nowhere else in Singapore and rare birds such as the Great-billed Heron.

41 However, as there are ongoing landfill operations on the island, opening up the landfill for recreational activities must be done in a gradual manner. Currently, students have been visiting Semakau Landfill under MOE's Learning Journey Programme. Grassroots organisations have also organised visits to the landfill for their residents during the Clean and Green Week campaign.

42 NEA has approached various interest groups while exploring the possibility of opening up Semakau Landfill for more recreational activities. So far, Wild Singapore has expressed interest in conducting biodiversity surveys on Semakau, Nature Society, for bird-watching and the Sport Fishing Association of Singapore in sport fishing. NEA will be putting in place the necessary amenities to support these activities. We can expect the first groups to commence their activities on the island in the 2nd quarter of 2005.

Engaging the Youth

43 Our young are naturally passionate about the environment. I found during a recent dialogue I had with some young people (who include tertiary students, environment volunteers and young working professionals), that several of them were enthusiastic about having more opportunities in engagement on environment issues.

44 If we can foster a sustained interest in environmental volunteerism in our young, we would have laid a good foundation for a generation of Singaporeans who are more conscious and engaged towards our environment. My Ministry have put in place a variety of programmes and activities to involve students on environmental issues.

45 The NEA has begun to build up a network of environmental champions among students to reach out to their peers. To date, NEA has trained some 470 student champions, from 82 primary and 58 secondary schools. Some of them have begun to give environmental talks in their schools to encourage their fellow students to adopt good environmental practices, such as recycling and checking for mosquito breeding in their homes.

46 In addition, we hope to see every school having a club that organizes environmental activities.

Such clubs could be dedicated Environment Clubs, or as part of other clubs such as Science Clubs or Geography Clubs. Currently, 25% of schools have Environment Clubs while another 65% have clubs with environmental activities.

47 NEA will similarly support Environment Clubs in schools through the 3P Partnership Fund when they organise environmental activities for the students.

48 NEA is also now working with the National Volunteer and Philanthropy Centre (NVPC) to develop more environment-related Community Involvement Programme (CIP) projects for students in primary and secondary schools.

49 We also launched the Adopt-A-School scheme where schools are matched with private companies to work together on environmental projects. To date, 43 schools have been matched with companies. For example, Dunman Secondary School and Singapore Airlines Limited teamed up to build roof gardens to reduce the temperature of upper floor classrooms in the school. NEA will work towards matching more schools with private companies this year.

Raising awareness and consultation on environmental issues

50 We will also be consulting the public this year on the review of the Singapore Green Plan 2012 targets and programmes. The review will commence in the 2nd quarter and the revised targets and programmes will be launched in the later part of this year. This is in line with the earlier announced plan of a three-yearly review of the SGP2012 targets since its launch in 2002.

51 We will involve representatives from the People, Private and Public sectors in the review of propose new or revised targets and programmes. We will set up three focus groups in March; an online channel to solicit the public's views; and there will also be a public exhibition to highlight the achievements so far and new directions and priorities going forward.

Economic Opportunities in the Environment Sector

52 The environment sector might have traditionally been viewed as a spender of public monies. However, with increasing emphasis on the need for good environmental management globally and in the region, we are well poised to take advantage of our good environmental track record to grow our environmental services industry as a source of revenue and jobs.

53 Both Dr Khor and Mr Othman have asked about the Ministry's efforts in manpower training and job redesign for the environmental sector.

54 For many years, many jobs in the environment industry sector have been low-paying and carried a poor image. As a result, the number of Singaporeans employed in this sector is small, accounting for only about 0.4% of the total Singaporean workforce.

55 Together with the Town Councils, Workforce Development Agency (WDA) and environment companies, my Ministry has started to upgrade and redesign jobs in conservancy cleaning, waste collection, hawker centre cleaning, street cleaning and waste recycling. The job redesign changes may include introducing greater mechanisation, performance-based contracts, work scope enlargement and flexible working hours. This will improve the images of the job and attract more Singaporeans.

56 Mr Othman has asked about the "1000 for 1000" initiative. Under this initiative, environment companies, NEA, WDA and Community Development Councils (CDC) worked together to create

and match 1000 jobs paying more than \$1000 a month within 18 months, from October 2003 to March 2005. The objective is to reduce structural unemployment and create more higher paying jobs for Singaporeans.

57 I am pleased to inform the House that at end-February, NEA and our partners have successfully matched 958 workers with jobs paying more than \$1000 a month for Singaporean workers. We have about a month to go, but we are confident that we will meet the target.

58 We learnt some useful lessons along the way. Firstly, Singaporean workers, including the more matured workers, are capable of taking on redesigned jobs with appropriate training. To this end, environment companies together with NEA and WDA have developed skill standards under the National Skills Recognition System (NSRS) and trained workers to attain NSRS certification.

59 In addition, cleaning and waste collection contracts called by NEA specify that a certain proportion of workers need to be NSRS-certified. Town Councils and private companies were also encouraged to employ workers with NSRS certification and to adopt performance-based contracts. All these have helped to encourage workers to upgrade their skills to qualify for higher paying jobs.

60 The second lesson is that a conscious effort has to be made to raise the image and improve the working environment for the workers. For example, workers doing redesigned cleaning jobs in hawker centres are provided with uniforms, meal coupons and proper rest areas.

61 So where do we go from here? My Ministry with our 3P partners will focus our efforts on raising the competency and enhancing the employability of the environment workforce through education and training.

62 Dr Khor has asked what plans and initiatives we have to help develop our environmental industry.

63 I am happy to report that through the involvement of the private sector in environment and water management over the years, we have facilitated the development of a vibrant and dynamic environmental industry in Singapore today. For example, refuse collection, recycling and public cleansing services are now carried out almost completely by the private sector. My Ministry, in collaboration with EDB and IE Singapore, will continue to build upon our initial successes to further help our local environment companies strengthen their expertise and grow their business.

64 So for example, we are exploring ways to further involve the private sector, for example, through PPP or public-private partnerships schemes. In the area of water supply, through Design-Build-Own-Operate (DBOO) contract arrangements, SingSpring will provide desalinated water over 20 years from the later part of 2005. Also, Ulu Pandan NEWater factory (to be owned and operated by Keppel) will be the 4th and largest, when it turns operational 2006. In addition, we will be calling a DBOO tender for the 5th Refuse Incineration Plant soon.

65 Apart from collaborating with environmental companies within Singapore, my Ministry is also working with the industry to venture out to the region. Last year, former Environment Minister Lim Swee Say had led a trade mission to China and I have also led a trade mission to UAE and Qatar. The trade missions helped our environment companies to showcase themselves and find out more about the overseas markets. I am pleased to report that Singapore companies have made good progress in establishing business links and exporting their services overseas following the trade missions. We will be conducting similar trade missions to other countries this year.

66 To help Singapore environment companies acquire a technological edge when they compete in overseas markets, we have been providing seed funding for innovative environmental projects under the \$20-million Innovation for Environmental Sustainability Fund, set up in 2001. In addition, under the joint Environmental Test-bedding Initiative with EDB, we allow environment companies to use our facilities and resources to test-bed their technologies. One company that has benefited from both funding and test-bedding support is local SME, Aromatrix Technologies Pte Ltd, whose patented odour control technology for wastewater treatment is one of only a few available on the global market today.

67 2005 is a watershed year for Singapore in terms of environmental and water conferences and events. At least three major international environmental and water conferences will be held this year, namely, the 1st International Water Association-Asia Pacific Regional Group (IWA-ASPIRE) Conference in July, the International Desalination Association (IDA) World Congress in September, and the World Hydrogen Technologies Convention in October. In addition, my Ministry, NEA and PUB are also working with the industry associations on their trade events, such as EnviroAsia 2005 and Environmex /Watermex Asia 2005. These events provide good opportunities not only for attracting internationally renowned experts to our shores, but also for local companies to showcase their products and services to regional and international audiences. At the same time, the companies will be exposed to new ideas and can explore tie-ups with potential partners to venture into overseas market.

68 For the water industry, we have established WaterHub to link up our local water and wastewater companies to international water networks and global markets. We also have regular dialogues with the recently-formed Singapore Water Association to better understand the needs of the water industry and feedback on how government can play a role in facilitating development of the industry.

Conclusion

69 In conclusion, Singapore will continue to face its own unique challenges in balancing both our economic and social progress with achieving environmental sustainability. However, we are determined to ensure that all who live in Singapore continue to enjoy a quality environment conducive for work and play, by working in partnership with the joint owners of the environment – namely the local communities and the businesses who operate here. Together, we can achieve a sustainable Singapore, for our children, and children's children.