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Distinguished guests

Ladies and Gentlemen

Introduction

A very good morning to everyone, I was just joking with Sasha[1] that it is very early in the morning actually, partly because I just came back from Europe not too long ago, so there is a bit of jetlag, but otherwise, I am very happy to see everyone here. It is a great pleasure for me to be here at this inaugural Singapore Sustainability Symposium, which provides a Singapore-based but international platform for thought leadership on sustainable development. I am also glad to know that the outcome of this symposium as Sasha reminded us again will serve as inputs for the World Cities Summit in June this year, which itself is a key global platform for government leaders as well as industry experts to address urban liveability and sustainability challenges.

Sustainable Development for Singapore

2 I think we all know, Singapore is a small island. Perhaps I should say, a very small island, with very finite space, water supplies and virtually no natural resources. We import most of the resources and materials needed to support our systems as a city, but somehow we have managed to develop into a fairly modern city with a fairly thriving economy. Through imaginative city design, careful planning and judicious land use, we have been able to house about 5.4 million people now and counting in a clean and green city, which has one of the best urban environments in the world. This transformation did not happen by chance. It was achieved through a multi-pronged effort to guide our development, with the support of both people and businesses.

3 As a small county, we have never assumed that we have any answers to the challenges of larger countries, far less in the world. It was only in a very tongue-and-cheek way that one of our agencies postulated at an urban planning summit that the world could be housed in “one thousand Singapores”. However, that does not mean that there is nothing to be learnt from our experiences. There are at least some useful lessons and they account for the fairly large number of delegations that do come to conferences such as World City Summit, Singapore International Water Week, where we share our experiences. So it is in this spirit that I share this morning about the sustainable development approach that Singapore has adopted.

4 In Singapore’s context, sustainable development has always met the need to grow the economy while ensuring that our living environment remains very liveable, high

quality. Taking a balanced path that benefits both the current and the future generations. Singapore has had to pursue economic growth relentlessly in order to better the lives of our people, as the country was in a state of widespread and abject poverty less than 50 years ago. At the same time, we recognised the importance of safeguarding our living and natural environment as material progress and well-being should not come at the expense of public health or overall quality of life.

5 To chart our strategies for sustainable growth, the Sustainable Singapore Blueprint, the first of its type of blueprint, was released in 2009. The blueprint was drawn up in partnership between the people, the private and the public sectors. It set out our 2030 targets and recommendations to build and to maintain a quality living environment, and to ensure that we make efficient and sustainable use of our resources. The areas covered in the blueprint include energy, water, waste management, air quality, parks and waterways. We made good progress towards these targets since then.

6 During this symposium you will be discussing over many different issues and one of them will be policy tools that governments have to try to drive the country or city towards liveability. Let me touch on some of the things that Singapore has done on three of those areas which I believe you will be discussing on - planning, economic principles and innovation and technology.

Planning Principles

7 Our efforts in sustainable development have been guided by three over-arching principles. Firstly, long term and integrated planning, in which policies that range from energy to transportation to waste management are designed with a long term and holistic perspective of Singapore's needs and circumstances. In particular, measures that are necessary to achieve long-term goals are adopted even if they incur costs in the short-term. Policies are adopted in a win-win situation as much as possible in order that we can have advancements on as many fronts as possible. So it is done in a balanced fashion. Secondly, we adopt a pragmatic approach in our planning. Observers have noted that pragmatism is often said to be Singapore's hallmark, and this observation is not wrong. We embrace what works, rather than being tied to any conventional wisdom or popular philosophies of today. Thirdly, we always try to ensure that our planning is flexible and dynamic. The challenge to maintain economic growth while also keeping a good environment will always span many decades, over which many things will change. We therefore have to remain nimble and adjust flexibly to changes in technology and in the global environmental conditions. So those three are our over-arching principles which I believe other people will be sharing and elaborating on in this symposium.

Economic Principles

8 Next, on the economic principles. In Singapore, sustainable development efforts have also benefited from the careful application of economic principles. This is especially the case for environmental policies, an area that my ministry deals with. Where externalities often exist and cause a misalignment between public interests and what

private companies or private entities are incentivised to do, good environmental policy needs to address and to deal with such externalities, but it is also important to use the right judicious mix of regulation and incentives. One example is that of the discharge of used water into public sewers, not something that you would want to talk about so early in the morning, but just one example. Industries in Singapore are required by regulations to treat wastewater to a required standard before it is discharged into a public sewer. There is, however, also a provision called the Trade Effluent Tariff Scheme which allows companies to exercise the choice to discharge slightly lower quality effluent into public sewers but for a fee. This fee is meant to recover the additional cost incurred in treating the additional pollution load at water reclamation plants. So companies have a choice, to go with the regulation or pay a fee in order to go to a lower standard and let the government take care of the rest. Another example was the phasing out of leaded petrol, where a differential tax system was introduced in the 1990s to encourage the take up of unleaded petrol by making it cheaper than leaded petrol by a significant price difference. This shifted the market share towards unleaded petrol over time, while providing flexibility and also easing the transition for users. Leaded petrol was eventually only fully phased out in 1998.

9 Economic principles have also been applied to the provision of basic services by pricing them correctly, so as to ensure that the right incentives are in place for people to consume only that which is "optimum" from the point of view of the society as a whole. Such right-pricing of services moreover ensured that the related industries present viable business opportunities for private companies. One example is water, where the higher cost of alternative water sources, especially at water challenged country like Singapore, is reflected in the tariffs paid by the consumers through the levying of the Conservation Tax. Another example is waste management services. Between 1991 and 2002, the gate fees for incineration plants were raised from $15 per tonne to $77 per tonne to cope with rising costs. And by adopting a cost-recovery approach, we ensured that the volume of waste did not grow excessively and unsustainably. Of course, this has a political cost because the raising of fees for such essential services are never popular. These gate fees are now regularly reviewed today.

Innovation, Technology and Capability Development

10 Next, let me move on to share a few points about our experience in innovation and technology. We have found that building our capabilities are important, both as ends in themselves and as a means to build up a competitive edge for Singapore. There will be a session on innovation and technology. I would like to suggest that these are important, both as ends in themselves, and as means to build up Singapore's knowledge base and capability to grow in a green and sustainable way, and create a competitive edge for Singapore. Such capabilities can only be developed through a close working relationship between the Government and the private sector. In the water industry for example, Singapore has transformed its vulnerability into strength with the development of major water projects such as NEWater and the Marina Barrage, which is an urban reservoir. Active involvement of the private sector in such projects over the years has helped to grow a local industry cluster of water companies with a wealth of technical experience

and know-how.

11 Clean energy, water and environmental industries have been identified as key growth areas and we envision Singapore as 'the Asian epicentre', where firms can develop and commercialise green technology solutions. To foster a conducive environment for businesses and environmental research and technology to flourish, we have shaped the R&D landscape in two ways. Firstly, through the cluster development strategy, in which we work to attract and anchor major environment and water companies to Singapore. Secondly, through the direct support and investment in technology and innovation capabilities, which are key enablers in growing our environment and water industries. To ensure that Singapore stays at the forefront of research and development, the Government has set aside more than $800 million to fund research and test bedding programmes in Clean Energy and Water Technologies up to 2015. Aside from the funds for this, we have also launched the $300 million Energy National Innovation Challenge and the $135 million Land and Liveability National Innovation Challenge to harness the existing multi-disciplinary research capabilities in Singapore to develop practical and impactful solutions to key challenges to Singapore's sustainability.

12 This includes the funding incentives across the entire spectrum of the technology development lifecycle and an incubator programme that nurtures start-ups through business mentoring and financial support. In terms of developing specialised manpower and talents in the environmental field, our local universities have also established for NTU the Nanyang Environment and Water Research Institute (NEWRI) and the NUS Environmental Research Institute (NERI). They sound very similar but they are both very much competing with one another to get talent. These institutions promote and coordinate Environment and Water Technology research and development.

13 Singapore is well placed to serve as a living laboratory for companies and research organisations to develop solutions for environmental sustainability in a high-density urban setting. To promote this, the government is building infrastructure to support such entities. One example is the development of the Jalan Bahar CleanTech Park. The first phase of this called, CleanTech One, opened only last year, but it already houses a vibrant research and test-bedding ecosystem for companies and institutes to test-bed practical and scalable urban solutions. Having like-minded professionals from academia and business under the same roof allows for fruitful collaboration and also exchanges which are both industry-relevant and practical. With the agglomeration of such partnerships, we hope that CleanTech Park will become a bustling focal point for green-collar workers in Singapore.

14 Singapore will continue to fund research and build supporting infrastructure so that we can be a global centre for knowledge and ideas on sustainable development in a high-density urban setting. We hope that this will help build many new businesses, new products and new services which the world needs to adopt a more sustainable lifestyle.

Conclusion

15 In conclusion, I would like to emphasize that sustainable development can only thrive, if we have the commitment of all three pillars, the government, business and people. The first pillar, government, has to continue to formulate policies and long term master plans as well as to invest in research and development. The Government also has a role to play in setting an example, and leading the way in being green just as Singapore's public sector agencies are doing so through a programme called Public Sector Taking the Lead in Environmental Sustainability (PSTLES). The second pillar encompasses the entire business community and not just the green sector. Alongside being viable, all businesses need to have a long term view to promote resource efficiency as part of their productivity movements, and adopt new processes and systems to reduce the environmental impact of their operations. I am glad in this regard to know that two years ago, the Singapore Exchange (SGX) introduced a Guide to Sustainability Reporting for Listed Companies. Last year, it released another publication for investors, called "An Investor's Guide to Reading Sustainability Reports". So the SGX is trying to work at both the companies as well as the shareholders. I think this is a very enlightening move which will eventually take on a greater momentum. Finally, the people sector forms the third pillar. For a small country like Singapore whose only resource are its people, it is of paramount importance that our NGOs and our people are empowered and motivated to play their part for sustainable development in Singapore. Last night when Minister announced that we will be doing a review of the Sustainable Singapore Blueprint, in this review as it is being done this year, it will, like the last version, closely involve the people and private sectors as we believe that this is a vital ingredient for the success and in such, that everyone can exercise.

16 On that note, I would like to once again thank NTU and CLC for organising this dialogue which brings together leading thinkers from Singapore and across the world. Like Sasha said, we are counting on you to come up with great ideas for the world and for Singapore and which we will be committed to practicalise for Singapore itself, when we go into our exercise this year. So I wish you all a wonderful symposium and I am sure you will enjoy yourself during these next two days. All the best. Thank you very much.

[1] Professor Alexander J.B. Zehnder, Member, Board of Trustees, Nanyang Technological University