

Green Thoughts Inspired by Stockholm and Rio

1 In 1972, the UN convened the historic Conference on the Human Environment in Stockholm, Sweden. Twenty years later, the UN Conference on Environment and Development, aka the Earth Summit, was held in Rio de Janeiro, Brazil. From 20 to 22 June 2012, the UN will hold its third conference on the environment, the UN Conference on Sustainable Development, aka Rio+20, again in the Brazilian city of Rio de Janeiro. It seems like a pattern has emerged: once every 20 years, the UN will convene a major conference on the environment.

2 I played a small part in the preparations for the Stockholm conference. I helped to prevent the radicals in the Group of 77 (the trade union of the developing countries) from hijacking the group with their narrative that the conference was a plot by the developed countries to prevent the developing countries from their economic advancement. My counter-narrative was that developing countries, such as Singapore, were seeking to make economic progress in harmony with our environment.

3 In March 1990, the UN elected me to chair the preparatory committee for the Earth Summit. The committee met over a period of two years, on five occasions: three times in New York and once each, in Nairobi and Geneva. At the Summit, the conference elected me to chair the Main Committee, its principal negotiating forum.

4 The following were the Summit's achievements:

- Rio Declaration on Environment and Development;
- Agenda 21, containing an ambitious 470 pages long programmes of action for sustainable development in the 21st century;
- Non-legally binding authoritative statement of Principles on Forests;
- Agreement to negotiate a new treaty to combat desertification;
- The opening for signature of the UN Framework Convention on Climate Change (UNFCCC), which had been negotiated on a separate track;
- The opening for signature of the UN Convention on Biological Diversity (CBD), which had also been negotiated on a separate track.

5 Twenty years have passed since the Earth Summit. Has the world made progress or regress during this period? On the positive side, we can point to the fact that all 193 Member States of the UN have either a ministry for the environment or an environmental protection agency. In addition, many countries have established national commissions on sustainable development and have adopted their own Agenda 21. We can also take satisfaction from the fact that there is no longer a constituency in the developing world for the view that we should develop first and clean up the environment later. The environment movement has grown stronger. It has influenced, in positive ways, the behaviour of individuals, communities, civil society, business, municipal, provincial and federal governments.

6 However, the positives are out-weighted by the negatives. The following are the principal problem areas:

- The emission of Greenhouses Gases has continued to increase and we are no longer sure whether the goal to cap the rise of global temperature to 2°C is doable.
- The Kyoto Protocol will expire at the end of 2012 and it is uncertain whether the developed countries would be willing to agree to a second commitment period (Australia and Japan have said that they would not, Canada has withdrawn from the Protocol, and the US is not a party to it).
- It is also not clear whether the agreement in Durban to negotiate a post-2020 agreement, applicable to all countries, will succeed.
- The world's rain forests, including those in Indonesia and East Malaysia, are rapidly disappearing, due to illegal logging and unsustainable forestry management.
- The world is losing its biological diversity at a rate which is 1,000 times faster than the natural rate of extinction.
- In the past 50 years, we have lost 20 per cent of the land suitable for agriculture, 90 per cent of our large commercial fisheries, and 33 per cent of our forests, leading to the loss of eco-systems.
- The oceans, which absorb 30 per cent of the carbon dioxide from the atmosphere and provide the largest source of protein to human beings, are threatened by acidification, rising temperature and over-exploitation.

7 Unlike the dismal global picture, the last 20 years has been a period of progress for Singapore. I count the following as some of Singapore's most important achievements:

- 47 per cent of Singapore's total land area is covered by greenery.
- The gazetting of two new nature reserves at Sungei Buloh and Labrador.
- Saving the tidal flat at Chek Jawa from reclamation.
- Saving the trees of the Lower Peirce Reservoir from being cut down to make way for a golf course.
- The building of new parks and an island-wide park connector.
- The building of the Marina Barrage and turning Marina Bay and the Kallang Basin into a reservoir.
- Opening our reservoirs for recreational use and bringing nature back to our rivers, streams and canals.
- Highlighting the role of cities in the conservation of biodiversity, culminating in the adoption of the Singapore Cities Biodiversity Index by the Nagoya Conference in 2011.
- Fostering the growth of a water industry and being a global thought leader of water policy and governance.
- Championing the movement of liveable cities and being a global thought leader on good urban planning, policies and solutions.
- Encouraging the trend to build green buildings and to retrofit old buildings to become green buildings.
- Launching multi-disciplinary environmental education, both at the undergraduate and post-graduate levels and at the Asia-Pacific Centre for Environmental Law of NUS.

- Saving endangered species of animals such as the banded-leaf monkey, welcoming the return of the hornbill and rediscovering other species that were thought to have disappeared from Singapore.
- Fostering a cooperative partnership between government, business and civil society.
- Building a new museum of natural history.

8 Singapore has done well, but we should not rest on our laurels. We should continue to forge ahead, to innovate and to learn from others. The following is my wish list.

9 First, I think the time has come for Singapore to enact a law on environmental impact assessment (EIA). Principle No. 17 of the Rio Declaration states: “Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.” Having been intimately involved in a legal dispute involving our land reclamation activities in the Strait of Johor, I know that we do, in fact, carry out such an assessment. The result is, however, not made public and there is no consultation with interested stakeholders. Our neighbour, Malaysia, has shown that having an EIA law need not result in inordinate delay. The two benefits are that the government could benefit from the feedback and the process is transparent and inclusive. At its best, the EIA will lead to a better decision, and the people will feel that their views have been taken into consideration in arriving at that decision.

10 Second, I would urge the authorities to consider designating our first marine nature reserve. We need such a reserve, with adequate protection measures for marine life in order to ensure the conservation of genetic diversity. Although Singapore has one of the world's biggest and busiest ports, it is not sufficiently known that, at the same time, we have 270 species of hard corals and 111 species of reef fishes, in our seas. A marine nature reserve will ensure the survival of this natural heritage. It will also be a great selling point and indicate our serious commitment to protect the marine environment to the world. The two potential areas are Pulau Hantu and Pulau Semakau.

11 Third, I would request our authorities to consider raising the bar on the recycling of waste. Singapore used to be the thought leader on the environment in Asia. In important respects, such as the recycling of waste, we have fallen behind Japan, South Korea and Taiwan. We should, where feasible, encourage the recycling of waste, such as paper, plastic, aluminium cans and glass bottles. The situation at present is not satisfactory. For example, the building in which I live and three of the clubs I belong to, do not have such facilities. We should also consider the feasibility of emulating Japan, South Korea and Taiwan by enacting a law, and to start by requiring industrial and commercial establishments, as well as hotels and food courts, to separate food waste from other kinds of waste at source. The food waste, when treated by anaerobic digestion, will produce biogas which can, in turn, be used to generate renewable electricity. We had such a plant in Singapore which, unfortunately, failed because, in the absence of a law requiring the segregation of waste, it could not get enough

uncontaminated food waste for treatment. This is a pity because if it had succeeded, it was scaleable and had tremendous potential in Asia as food waste is a major source of leachate contamination of ground water and a contributor to greenhouse gas emissions.

12 Fourth, I would request NUS to consider starting a new School of Environmental Studies. The bachelor's degree on environmental studies and the master's degree on environmental management could be brought together in the new School. The Institute of Water Policy, currently housed in the Lee Kuan Yew School of Public Policy, and the Centre of Sustainable Asian Cities, currently located in the School of Design and Environment, could migrate to the new School. Bringing them together would enable us to harness the synergy between them and to develop it as one of our centres of excellence. The current links between the master's degree programme and the universities of Yale and Duke should be strengthened. NUS has a strategic opportunity to become a leading centre of environmental education in Asia. Indeed, Singapore has many leading thinkers on the environment, leading environmental economists, environmentally friendly bankers, fund managers, stock exchange and a vast pool of capital in search of investment. Singapore has an opportunity to bring them and a growing family of international green groups together to make Singapore into one of the world's leading innovators in using markets and investments to encourage and reinforce best practices in sustainable development.

13 Fifth, Singapore's air quality is good, but it could be better. My wife and I live in a building without a covered garage. After the rain

has stopped, we often dry our car with paper towels. Each time, we have observed that the paper towels are stained black by the impurities in the air, which are contained in the rain water. A major source of air pollution is the emission of our vehicles. We should redouble our efforts to promote the electric vehicle and hybrid vehicle. The government is spending \$1.1 billion to buy 550 new buses. Is it possible for the government to consider buying electric or hybrid buses? We should also promote cycling and, wherever possible, to designate special lanes on our roads for cyclists. I spent 13 years living in one of the most congested cities in the world, New York City. If New York can do it, I would like to believe that so can Singapore.

14 Sixth, in our quest to reduce our carbon footprint, energy efficiency is a low hanging fruit. The efficient use and the conservation of energy are, however, achievable only with the cooperation and help of business and the people. Let me cite one example. Singapore has become notorious for its abuse of air-conditioning. I remember the former Dean of INSEAD, Antonio Borges, telling me, during his first visit to Singapore, that he had discovered that Singapore actually had two seasons: summer outdoors and winter indoors. I also remember, an occasion when the Mongolian trade minister said to us, at a welcome dinner for trade ministers, held in the freezing ballroom of a leading hotel in Singapore, that he did not know that Singapore was colder than Mongolia. The gentle and humourous ads on television by NEA, exhorting Singaporeans to use air-conditioning more responsibly, have not worked. I would urge the NEA and SEC to wage a more energetic campaign targeting our educational institutions, hospitals, movie theatres, hotels, restaurants, clubs, etc.

15 Seventh, my final wish has to do with our beloved Orchard Road. My wish is inspired by Copenhagen and New York. In Copenhagen, the main shopping street is a pedestrian mall. One of the reasons for the jury's decision to award the 2012 Lee Kuan Yew City Prize to New York is that it has turned Times Square into a pedestrian mall and, thereby, rejuvenated the whole area around it. Would it not be wonderful if we could turn the stretch of Orchard Road, between Tangs and Centrepoint, into a pedestrian mall? If the experience of New York is portable to Singapore, this will increase, not decrease, the property value and business along Orchard Road.

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[Essay for ST, as at 6 Jun 12, 12noon]

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