

experience **Singapore**

A newsletter of the
Singapore Cooperation Programme

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ISSUE 39

LIVING THE GREEN LIFE

REACHING NEW
HEIGHTS OF
SUSTAINABILITY

QUAKE RELIEF

SINGAPORE MAKES
SPEEDY EARTHQUAKE
RESPONSE

A FLOWER IN YOUR NAME

MEET THESE LOVELY VIPS
(VERY IMPORTANT PLANTS)



Dear readers,

In this edition of *Experience Singapore*, our cover story looks at Singapore's moves towards environmentally-friendly urban living. Singapore was recently named Asia's greenest metropolis for its efforts in environmental and climate protection.

This award is just one of the recent milestones in Singapore's journey to sustainable development. This issue looks at Singapore's first green public housing project, the Treelodge@Punggol and talks to one of its residents about living **The Green Life**. We also bring you **A Flower of Friendship**, which reveals the secrets behind the VIP orchids in Singapore's National Orchid Garden.

Sustainability has also been a key topic in recent Singapore Cooperation Programme (SCP) workshops. Several SCP participants tell us what they learnt about efficient energy resources and water management in **Reflections**.

In addition, read about how Singapore was among the first countries to respond with **Quake Relief** efforts for Christchurch in February. Last but not least, we examine **The Rise of Volunteerism** among Singaporeans.

We hope you will enjoy reading this issue of *Experience Singapore* and find it informative. And do keep the letters coming in with your comments and suggestions!

Sudesh Maniar

Director

Public Affairs Directorate

Ministry of Foreign Affairs Singapore

KEEP IN TOUCH!

Share with us your memories, photos and views of your experience in Singapore under the Singapore Cooperation Programme. Email us at mfa@mfa.gov.sg.

Experience Singapore is a publication of the Public Affairs and Technical Cooperation Directorates of the Ministry of Foreign Affairs, Singapore. The Singapore Cooperation Programme (SCP) is administered by the Ministry of Foreign Affairs, Singapore, and is aimed at sharing Singapore's developmental experience with other developing countries.

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QUOTES FROM READERS' LETTERS

"I received much valuable information about environmental matters from attending the SCP course, which I now apply in my daily work."

Kadir Demirbolat
Turkey

"The newsletter rekindled the sweet memories I hold for Singapore. Wonderful hardworking and disciplined people. Amazingly, this cuts across all ages. Bravo Singaporeans!"

Flora Kumama Wakolo
Kenya

"Your country's airport facilities and services for its customers are really impressive. Hope to read about your Sea Port and shipping industries in your next edition!"

Mangala Prabath Weragal
Sri Lanka



MINISTRY OF FOREIGN AFFAIRS
SINGAPORE

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Cover photo: Ealbert Ho

ELECTRIC CAR PILOT BEGINS

Singapore's first electric vehicle trial began in June. The S\$20 million pilot will test the durability and feasibility of using electric vehicles in the tropical climate of Singapore.

According to the Energy Market Authority (EMA), five Mitsubishi i-MiEVs — out of a projected fleet of up to 25 cars — have been delivered. These cars are lithium-powered and have a top speed of 140kmh. They can also hit 100kmh in about nine seconds. According to manufacturers, the i-MiEVs can travel up to 160km between charges.

As part of the trial, German components maker Bosch will be implementing a charging network of up to 25 stations that can charge a vehicle fully within eight hours. There will also be a quick charging station which gives a full charge in 45 minutes.

During the pilot, the cars will be tested by institutions, government bodies and corporations.



Photo: Cycle and Carriage

SINGAPORE SHIPPING GOES GREEN

The Maritime and Port Authority of Singapore (MPA) has launched the Maritime Singapore Green Initiative.

Under the Green Ship Programme, Singapore-flagged ships that are designed to be energy efficient and exceed the energy efficiency requirements of the International Maritime Organisation will only pay 50 per cent of the Initial Registration Fee and get a 20 per cent rebate on Annual Tonnage Tax. Ship owners who show leadership in the area will also receive certificates and a "Green Ship" award. Ships calling at the Port of Singapore using approved technologies or clean fuel can also qualify for a 15 per cent reduction on port dues payable under the Green Port Programme.

MPA has also set aside S\$50 million for a Green Technology Programme to encourage local maritime companies to adopt green technologies. They can apply for a funding to offset up to half of the cost for such projects, subject to a cap of S\$2m.

TALKING POINT

"We hope that planting a trail along a shopping belt will make appreciating nature more accessible."

Dr Geh Min, immediate past president of the Nature Society (Singapore), on the planned 4km butterfly trail — a green corridor with plants that attract butterflies — along Orchard Road that will be ready by 2012



NEWS IN NUMBERS

23.3%

The national volunteerism rate in Singapore in 2010 — an all time high

S\$31 million

The amount the Housing Development Board has committed to a five-year scheme to test-bed solar energy in 30 precincts

5

The number of Heritage Roads in Singapore — protected scenic tree-lined streets that are home to mature trees and wildlife



At Treelodge@Punggol, rooftop tanks collect rainwater used in irrigation, while solar panels power public lights. Large windows and lush landscaping keep things cool and airy.

Photos: Ealbert Ho



THE GREEN LIFE

From the launch of the first eco-precinct Treelodge@Punggol to the first Zero Energy Building in Southeast Asia, Singapore's public sector is leading the way towards environmentally-friendly and sustainable urban living.

WORDS BY **CHERYL LEONG**

For Ms Chloe Mah and family, living the green life has become a reality. They live in Treelodge@Punggol, the first green public housing project by the Housing Development Board (HDB). The development has set the benchmark for sustainable development in Singapore, and boasts a number of firsts in public housing: rooftop solar panels to power public lights, rainwater tanks to collect water for watering plants and special concrete for walls that keep the indoor temperature of homes cooler. Within the home, toilets come with an integrated wash basin that recycles water for flushing.

"When we first heard about Treelodge@Punggol's eco-friendly elements, we were really excited about it. One of the energy conserving at-

tributes we find most cost-effective is the large three-quarter length windows in our flat that let in a lot of natural wind and light, and reduce the need for air conditioning," said Ms Mah, a sales manager.

For its energy-efficient design, Treelodge@Punggol was awarded the Chicago Athenaeum's Green GOOD Design Award in 2010 as well as Singapore's Green Mark Platinum. The Green Mark is a sustainable building rating system by the Building and Construction Authority (BCA). The scheme assesses buildings on their environment-friendly features and awards either a BCA Green Mark Platinum, Gold-Plus, Gold or Certified rating.

Treelodge@Punggol showcases not only green innovations, but also symbolises how sustainability has become a part of Singapore life. At the launch

of the project in 2007, then-Minister for National Development Mah Bow Tan said that the project represented a "significant jump in terms of what public housing can offer". Since then, the HDB has completed 14 public housing projects with Green Mark status and as a start, installed solar panels in six precincts with plans to include 30 more.

TAKING GREEN TO NEW HEIGHTS

As Singapore's first eco-precinct, Treetops@Punggol is just one example of how the public sector has been leading the way in promoting green urban living. Since 2009, the government has aimed to ensure that buildings owned by the public sector are Green Mark-rated and certified. The government's plan is to have 80 per cent of buildings in the island state certified by 2030.

In 2011, BCA awarded Green Mark status to 164 buildings, up from 102 in 2010. The certification has also been awarded to a growing number of overseas applicants. Since 2006, 74 buildings across Asia in Malaysia, Indonesia, Vietnam, the Middle East, China and more have been certified.

Another more far-reaching initiative from BCA is its Zero Energy Building (ZEB), the first such building in Southeast Asia. Located in Braddell Road in north-eastern Singapore within the BCA Academy, the building was retrofitted from a three-storey workshop for S\$11 million, just 5 per cent more than for a conventional building. It houses classrooms, offices and a test-bedding facility, and uses photovoltaic technology that transforms sunlight into energy as well as many other green technologies (see box story).

At the 2010 World Cities Summit held in Singapore, Mr Mah said, "The opening of ZEB marks a key milestone in Singapore's building and construction history. It will also help our sustainable development initiative in the Building sector. We will press on to build up our capabilities to be more energy-efficient, explore new technologies and innovative solutions in our quest to achieve greater energy efficiency and environmental sustainability."

Come September, Singapore hopes to share its experiences in green building policies by hosting the 3rd Singapore Green Building Week (SGBW). As part of the line-up, the 2nd International Green Building Conference (IGBC), and the Build Eco Xpo Asia (BEX Asia) events seek to offer an extensive sharing and learning platform for international green building experts and practitioners. For the first time ever, the Asia-Pacific Economic Cooperation (APEC) and the Association of Southeast Asian Nations (ASEAN) will also convene a joint workshop on Green Buildings during SGBW, to discuss issues and solutions pertaining to trade barriers on green building products and services, as well as green building standards within the APEC economies.

EFFICIENCY STRATEGY

The government unveiled the National Climate Change Strategy in 2008, highlighting energy efficiency as Singapore's key approach to lower carbon emissions. The aim is to improve energy efficiency by 35 per cent by the year 2030, from 2005 levels. Some areas being tackled include:

Reducing Industry Emissions

Companies are encouraged to adopt efficient technologies via training incentives and subsidies.

Resource Management

A national recycling drive has achieved a 58 per cent recycling rate, on target to meet the goal of 70 per cent by 2030.

Sustainable Transport Policy

A Vehicle Quota System, comprehensive public transport options, and rebates on green vehicles have kept the vehicular carbon footprint manageable.

Community Engagement

The National Environment Agency (NEA) engages the 3P (People, Private, Public) sectors to promote awareness and adoption of energy efficient practices via workshops, campaigns, energy labeling and education.

For these wide-ranging strategies, Singapore was recognised as the Greenest City in Asia in a study by electronics giant Siemens in February 2011. The report noted, "Singapore City stands out in particular for its ambitious environmental targets and its efficient approach to achieving them."

Photo: Building and Construction Authority



BCA's Zero Energy Building

Rooftop solar panels generate all the energy needs of the ZEB, while rooftop greening keeps ambient temperatures down (above).

The building's other features include 'cool' glass windows that reduces solar heat, 'smart' lights that only turn on when required, and super efficient air-conditioning.

In September 2010, after about a year of operations, ZEB has achieved zero power consumption and generated a surplus of 16.3 megawatts/hour of electricity – enough to power 35 HDB 5-room flats.



The Singapore International Foundation's (SIF's) Words on Wheels mobile library for Hanoi's village children involves volunteers doing story-telling, art and craft and multimedia activities. It is one of many overseas volunteering opportunities offered by the organisation. Since 1991, SIF's Singapore International Volunteers programme has sent more than 1,600 Singaporeans overseas.

Photo: Singapore International Foundation

THE GIFT OF GIVING: THE RISE OF VOLUNTEERISM

The rise of volunteerism in Singapore was underscored by the recent success of the 21st International Association of Volunteer Effort (IAVE) World Volunteer Conference, held for the first time in Singapore from 24 to 27 January 2011.

WORDS BY **CHERYL LEONG**

With 89-million hours of community service – worth S\$1.8 billion – performed in 2010 and the national volunteerism rate increasing to 23.3 per cent (up from 9.3 per cent in 2000), it is clear that volunteerism is taking root in Singapore. Referring to these figures from the National Volunteer & Philanthropy Centre's (NVPC's) Individual Giving Survey 2010, Mr Laurence Lien, NVPC CEO, told *Experience Singapore*, "There has been heightened awareness of volunteerism locally ... Young people, those aged 15 to 24 in par-

ticular, are also volunteering more so than ever before. It is very heartening to see this socially-conscious generation recognising the importance of giving and engaging with the community and issues that matter to them."

Given this growth in volunteerism, it was perhaps fitting that the 21st International Association of Volunteer Effort (IAVE) World Volunteer Conference was held in Singapore in January. An international audience of over 1,000 attended the conference to glean insights from 150 practitioners on how to improve the network of

volunteerism – and find more ways to grow the passion.

Discussions at the conference on issues such as the eradication of poverty and humanitarian relief moved and inspired the attendees. There were presentations by martial arts movie star Jet Li who spoke about his work as the International Red Cross and Red Crescent Societies Goodwill Ambassador and founder of philanthropic and volunteerism organisation the One Foundation. Actress Michelle Yeoh spoke about her role as Global Ambassador for the Make Roads Safe campaign.

A COMMUNITY OF VOLUNTEERS

The two key messages that emerged from the IAVE conference were the importance of i) using new media vehicles to elevate social conscience and activate volunteers, and ii) professional volunteer management to develop long-term relationships with volunteers. Ultimately the aim is to create meaningful volunteering experiences and build a culture of giving.

Speaking at the conference, Tadateru Konoé, President, International Federation of Red Cross and Red Crescent Society said, "Volunteers are drivers of much-needed economic and social growth, and they are the power of humanity." Emeritus Senior Minister Goh Chok Tong (who was then Senior Minister), gave the opening plenary speech at the conference. He applauded volunteers for having made "a difference in every society, at every level and in every sector". Making special mention of Singaporeans' spirit of volunteerism in times of natural disasters, he said: "Hundreds, and sometimes thousands, of volunteers will rush to undertake humanitarian and disaster relief work, often at great risk to their own safety. We see them doing their utmost during the 2004 Asian tsunami, the 2008 Sichuan earthquake, the 2010 Haiti earthquake and more recently, the floods in Australia. They raised funds, sent supplies, consoled those affected and rebuilt homes. They gave selflessly."

LENDING A HAND OVERSEAS

Indeed, more Singaporeans are volunteering overseas, and not just in times of natural disasters. At the Singapore International Foundation (SIF), the Singapore International Volunteers programme founded in 1991 has sent more than 1,600 Singaporean volunteers overseas. These include six to 24-month in-field assignments or specialist training and skills upgrading projects. An SIF spokesperson told *Experience Singapore*, "More Singaporeans are becoming aware of needs overseas and are willing to serve in these countries to make a difference."



IAVE board members met President S.R. Nathan of Singapore at the Istana for a network session during the conference.

Photo: National Volunteer & Philanthropy Centre

"Volunteering has the potential to make a difference and change lives."

Emeritus Senior Minister
Goh Chok Tong

More are also keen on volunteering on a sustained basis. SIF noted that up to 70 per cent of their volunteers are repeat volunteers.

Most recently, SIF launched direct-service projects to offer short-term volunteerism opportunities. This includes Water for Life, an initiative to provide clean water to villages in Cambodia where volunteers assemble and install bio-sand water filters in rural households. Another is

a mobile library scheme 'Words on Wheels' in Hanoi in Vietnam which runs story-telling, art and craft activities and multi-media coaching to village children. Ms Euleen Goh, Chairman of SIF's Board of Governors, said in the SIF 2009-2010 annual report: "Our corps of volunteers from Singapore ... have not only improved lives through their work in overseas communities, but brought about a bridging of communities, fostering greater understanding and appreciation of different cultures."

As Emeritus Senior Minister Goh observed at the IAVE conference: "Volunteering has the potential to make a difference and change lives. When people rally around a cause they truly believe in, the impact is often profound and enduring. Let us aim for a world where everyone is a volunteer, even if it is just once in their lives."

CONFERENCE HIGHLIGHTS

Singapore is the first ASEAN country to host the IAVE World Volunteer Conference

The 21st IAVE World Volunteer Conference was held in conjunction with the 10th anniversary of the UN International Year of Volunteers (IYV+10) and IAVE's 40th anniversary

The Conference drew over 1,086 delegates from 47 countries

Conference participants were treated to a Singapore food trail to over 15 local hawker centres and restaurants

JOINING HANDS



SAF soldiers assisting their NZDF counterparts at the Water Purification Unit site in South New Brighton.

PHOTOS: Ministry of Defence



COL Melvyn Ong speaking to his staff upon arrival in Christchurch.

QUAKE RELIEF

When Christchurch was hit by a devastating earthquake in February, Singapore was among the first to offer help.

WORDS BY **CHERYL LEONG**

New Zealand's "darkest day" began like any fair summer's morning. But shortly before 1pm on 22 February 2011, Christchurch was rocked by a 6.3 magnitude earthquake – which seismologists regard as an aftershock from the 7.1 magnitude Christchurch earthquake of September 2010.

Within 24 hours of the quake, Singapore deployed some 200 Singapore Armed Forces (SAF) personnel and a 55-strong SCDF urban search-and-rescue (SAR) team to assist in rescue operations. Seeing the devastation in Christchurch first hand was a sobering experience for Colonel Melvyn Ong, Singapore's Contingent Commander for the Christchurch Relief Efforts, "[It was] surreal seeing all these grand buildings, like the cathedral and churches crumbled to the ground, and scores of people desperately searching through the rubble for their belongings."

"We were there to help reinforce cordon operations, to direct traffic and ensure the safety of civilians by preventing them from accessing collapsed buildings, which were still unsafe," Colonel Ong told *Experience Singapore*. According to SCDF's Lieutenant Colonel (LTC) Ling Kok Yong, Contingent Commander for Ops Lionheart Contingent, his SAR team carried out operations at 63 sites during the 19-day deployment. At least 181 people died and 2,000 were injured in the quake which resulted in some NZ\$15 billion (S\$15 billion) in damages.

What struck both men most was the resilience of the New Zealanders. "You'd have expected a lot more frustration," said Col Ong. "People were not able to retrieve their belongings or enter buildings to rescue their trapped family and friends [but] they were quite calm and cooperative." Unaffected Christchurch residents and other

New Zealanders also came in droves to donate and offer help. "The community [was] still able to group and organise themselves, providing [emergency responders] with basic logistical support, warm food and drinks supplied round the clock," said LTC Ling.

By 14 March 2011, the Singapore teams had returned home. Recalling his experience, Colonel Ong said, "When we were there, people came up to us with cakes and kind encouraging words... Some of the guys even brought home notes of appreciation, which they've framed up to remind them of the experience. This is a bond of friendship that will last between both our nations."

In April 2011, New Zealand Defence Minister Wayne Mapp presented Chief of Defence Force Neo Kian Hong and SCDF Assistant Commissioner Eric Yap with the traditional Maori Mere – 12-inch *pounamu* stone clubs which symbolise courage and leadership. During the presentation ceremony, Dr Mapp observed that Singapore's speedy response has underscored the ties of both nations. "We knew there were a small number of countries we could count on to be quick responders, and Singapore was right at the top of that list."



NZ Defence Minister Wayne Mapp presented the Maori Mere to Chief of Defence Force Neo Kian Hong and SCDF Assistant Commissioner Eric Yap.

A FLOWER OF FRIENDSHIP

Besides being famous, Queen Elizabeth II, Singapore singer Stephanie Sun, Korean actor Bae Yong Jun and former British Prime Minister Margaret Thatcher have something else in common. Each has had an orchid specially grown and named after them.

WORDS BY **SHERALYN TAY**

The breeding and naming of an orchid species after a very important person with significant or longstanding ties to Singapore has been a gesture of friendship for well over half a century. Orchids have long been associated with Singapore. The national flower is the distinctly-coloured Vanda Miss Joaquim – the first hybrid orchid discovered in the country. The resilient Vanda Miss Joaquim, which blooms throughout the year, also symbolises the national spirit – the continuing quest for progress and prosperity.

The first person to have an orchid named after her was Anne Black, the wife of the fifth governor of Singapore, Sir Robert Black, in 1956. Since then, more than 150 personalities and dignitaries have been accorded this gesture. They include Emperor Akihito of Japan, King Abdullah II of Jordan, former South African President Nelson Mandela and former British Prime Minister Margaret Thatcher.

Philippine President Benigno S. Aquino recently had an orchid named after him when he visited the National Orchid Garden in March 2011. According to Dr Yam Tin Ying, the Garden's senior researcher of orchid breeding, this yellow-hued orchid was selected because President Aquino had specially requested for one to resemble the bloom named after his mother, the former President Corazon Aquino during her state visit to Singapore in 1986.

Scientists even took the effort to use an orchid with a lineage from the Philippines. "We try to find something appropriate or meaningful for the VIP where possible," said Dr Yam.

According to the National Parks Board (NParks), which runs the National Orchid Garden, the breeding of these hybrid VIP orchids is a complex and time-consuming feat. Carefully fertilised seeds are fed special nutrients and the delicate seedlings are laboratory-grown in special flasks. It takes about three years for the first hybrids to bloom. The best are selected for further breeding via a technique called tissue culture.

The 'Very Important Plants' (VIP) are displayed in a VIP Orchid Garden that is open for public viewing and is part of the National Orchid Garden at the Singapore Botanic Gardens. According to Alan Tan, Deputy Director (Living Collections & Development) at NParks, orchid naming is a "unique bilateral diplomatic initiative from the Singapore Government." Each radiant orchid hybrid that bears the name of

a dignitary or celebrity is a symbol of friendship, respect and commitment.

Visit the National Orchid Garden

Singapore Botanic Gardens
1 Cluny Road
Open from 8.30am – 7.00pm daily



VANDA MISS JOAQUIM
The bloom was discovered in 1893 by its namesake, Agnes Joaquim. It is considered to be the first orchid hybrid from Singapore.

Photos: National Parks Board



ASCOCENDA BENIGNO S AQUINO III
Presented to Philippine President Benigno Aquino on 11 March 2011, this yellow orchid bears some resemblance to President Aquino's late mother's orchid, the Dendrobium Corazon Aquino, named when she was in Singapore on a state visit in 1986.





Feroj Al Mamoon, Assistant Chief of the Energy and Mineral Resources Division at the Ministry of Power in Bangladesh (second from right) discussing with other participants.



Participants of the Climate Change and Sustainable Energy Management course, 4–15 October 2010.

A TOUGH TAKE ON CARBON

A holistic range of policies come together to mitigate carbon emissions in Singapore – from industry to the public sector and the man on the street.

WORDS BY **SHERALYN TAY**

As a country with limited access to non-fossil fuel energy sources, Singapore's key strategy to mitigate carbon emissions is to improve energy efficiency in all sectors. In 2009, Singapore further pledged to reduce greenhouse gas emissions by 16% below 2020 Business-as-Usual (BAU) levels¹.

Singapore's industrial sector generates at least 54 per cent of national carbon emissions. The government has initiated co-funding schemes to encourage energy efficiency in the sector. These include incentives and grants for energy efficient design, energy audits and training in energy efficiency management. Since 2001, Singapore has also switched from fuel oil to natural gas, the cleanest form of fossil fuel, to generate electricity.

Similarly in the transport sector, which makes up one-fifth of Singapore's carbon footprint, the push for public transport, green technology and management of vehicle ownership have helped mitigate emissions and maintained good air quality. The Green Vehicle Rebate, an ongoing scheme to encourage green transport technology, has resulted in 47 compressed nat-

ural gas (CNG) or hybrid buses, some 2,800 hybrid taxis and 6,140 hybrid cars plying the streets of Singapore. Car growth has also been limited to 3% and further lowered to 1.5% since 2009.

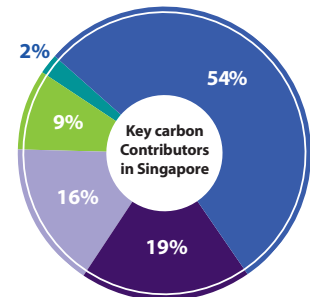
Public sector leadership has been instrumental in institutionalising sustainability. Underpinning this is a push to nurture a mindset that 'sustainability begins with me'. The Energy Efficiency Programme Office launched a 10% Energy Challenge that encourages people to buy energy saving appliances and conducts workshops on how to do an energy audit for the home.

To help policymakers appreciate climate change issues and understand Singapore's carbon mitigation policies, the Singapore Cooperation Programme (SCP) in partnership with Korea International Cooperation Agency (KOICA) organised the "Climate Change and Energy Sustainability" course. It took place from 4 to 15 October 2010 at the Singapore Environmental Institute.

Participant Feroj Al Mamoon, Assistant Chief of the Energy and Mineral Resources Division at Bangladesh's Ministry of Power, commended that "site visits to Tuas Incineration Plant,

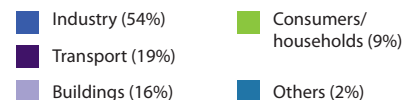
Tuas Power Plant and Zero Energy building added practical technological knowledge". Evelyn Sharma, Support Officer for Energy at Fiji's Ministry of Public Utilities, attended the SCP course on "Climate Change and Sustainable Energy Management" from 1 to 10 March 2011. She remarked that "a small country like Fiji has a lot to learn from Singapore" and Singapore energy efficiency improvements set "a benchmark for many other developing countries".

1. This is contingent on a legally binding global agreement



Total carbon emissions: 40,377 kilo tonnes CO₂ contribution in 2005

Source: Singapore's National Climate Change Strategy Report



SHARING WATER KNOW-HOW

Attention to water resource management and a focus on innovation have in the last 40 years allowed Singapore to build a sustainable and diverse water supply.

WORDS BY SHERALYN TAY

Participants of the Singapore Cooperation Programme (SCP) were at times bemused that despite being surrounded by water, water remains scarce in Singapore. The simple and little-known fact is that the island-state lacks natural aquifers to contain rainwater or groundwater. To overcome this, Singapore had embarked on a concerted two-pronged approach to increase supply and improve water management. This has helped build and maintain a sustainable water supply, putting the island nation on the road to self-sufficiency.

A "Four National Taps" strategy has increased water supply. Apart from importing water from Malaysia, Singapore has a local catchment system that channels rainwater to 17 reservoirs. Five plants also produce high-grade purified reclaimed water called NEWater to meet 30 per cent of water needs. Desalination – the fourth tap – has also come on board since 2005.

Recently, national water agency the Public Utilities Board (PUB) and water management company Hyflux inked a deal for a second desalination plant. When completed in 2013, it will supply an additional 318,500 cubic metres of water a day.

Xu Wei, a participant of the SCP course "Unaccounted for Water Reduction & Water Conservation" (5 to 11 January 2011) commended NEWater as "a key to reduce the shortage of water".

The engineer at China's Department of Policy, Laws and Regulations at the Ministry of Water Resources thought it was essential to find innovative water sources.

Ms Nthabiseng Evodia Mokhabuli, Principal Water Officer at the Department of Water Affairs in Lesotho attended the "Integrated Water Resources Management" course held from 1 to 7 September 2010. She said, "The course came at the right time as Lesotho is about to start our pilot project using new solar energy to-

gether with a filtration membrane to treat water."

Sponsored by MFA and conducted by PUB, both courses share how Singapore manages water resources through water resource protection, cost-effective water processing, minimising water wastage, and closing the water loop through NEWater. Another SCP participant Jonathan D. Maino, Water Operations Engineer at the Public Works Department in Papua New Guinea noted, "The programme is very essential...Singapore shows that there is no limitation to supplying quality water for all."



Mr Xu Wei, engineer at the Department of Policy, Laws and Regulations at the Ministry of Water Resources in China (right) speaks to a delegate.



Participants of the Unaccounted for Water Reduction & Water Conservation course, 5-11 January 2011.

SINGAPORE AND THE UNITED NATIONS DEVELOPMENT PROGRAMME LAUNCH BOOK ON SINGAPORE'S PUBLIC SERVICE



The book was launched by the Head of Civil Service Peter Ong (left), UNDP Resident Representative for Malaysia, Singapore and Brunei Kamal Malhotra (centre), and author Dr Saxena (right).

Singapore and the United Nations Development Programme (UNDP) jointly launched the book *Virtuous Cycles: The Singapore Public Service and National Development* on 24 March 2011. The book highlights the lessons and best practices from the Singapore Public Service.

It was commissioned by the UNDP in collaboration with the Singapore Cooperation Programme (administered by the Ministry of Foreign Affairs) and the Singapore Civil Service College. The book was launched by the Head of Civil Service Peter Ong, UNDP Resident Representative of Malaysia, Singapore and Brunei Kamal Malhotra and author Dr Naresh Saxena.

In his opening remarks addressing more than 100 local and foreign dignitaries and guests, Mr Malhotra emphasised, "Good governance is not only about policy. It is also dependent on the implementation of that policy". Dr Saxena added that markets alone are not sufficient for a country's development, and that funds available are best utilised with a civil service like Singapore's that strives to be corruption-free. As Dr Saxena summed up succinctly, combating corruption is a matter of converting "low risk, high rewards" to "high risk, low rewards".

In his keynote address, Mr Peter Ong said that Singapore "sought to build up a public service that was proactive rather than reactive". For the Singapore Public Service "to better address emerging strategic challenges" that were highlighted in the book, it needs to be more responsive and forward-looking. He cited the Public Service in the 21st Century (PS21) and the recent setting up of the Centre of Strategic Futures as examples of how Singapore continuously builds up its anticipatory capacity.

Those interested to read the book may access it at www.scp.gov.sg

"Good governance is not only about policy. It is also dependent on the implementation of that policy".

Mr Kamal Malhotra

SCP ROUNDUP

10 TO 21 JAN 2011

Eighteen Armenian officials visited Singapore to learn about our approach towards governance, economic development and performance management. Organised by the Singapore Cooperation Programme and conducted by the Singapore Civil Service College, the study visit was a partnership with the Charles and Agnes Kazarian Foundation and J-Intersect. It was the first in-depth study visit for Armenian civil servants. During the visit, delegates got a first-hand view of Singapore's public administration systems in action.

15 TO 18 FEB 2011

Eighteen officials from the South Asian Association for Regional Cooperation (SAARC) member countries attended the "Regional Economic Integration: Sharing Asian Experiences" policy workshop. Covering Southeast Asia's experience in regional integration, the workshop was organised by the S. Rajaratnam School of International Studies, Asian Development Bank, Asian Development Bank Institute and the Singapore Cooperation Programme.

2 TO 15 MAR 2011

Singapore hosted 10 young officers from the Ministry of Foreign Affairs of Myanmar for the "Workshop on Capacity Building for Young Myanmar Diplomats". The two-week course was organised under the Singapore-Hanns Seidel Foundation Joint Training Programme. It was aimed at building competencies in English language and communication, event management, business etiquette and protocol arrangements.

17 TO 23 MAR 2011

In conjunction with the celebration of 100 years of civil aviation flights in Singapore, the Singapore Aviation Academy held the 19th Civil Aviation Chief Executive Programme. Chief executives of civil aviation organisations from 14 countries attended this programme sponsored by the Singapore Cooperation Programme and took part in lectures and discussions on the challenges and future of civil aviation.

For more information on the Singapore Cooperation Programme, please visit www.scp.gov.sg