



*a Future
we share*



Transforming To Be Future-Ready

“I see NEA operating in a national as well as a broader, global context. And that’s because of what Singapore is. We are a city situated in this wider landscape and whatever happens out there will impact Singapore. So there are always two dimensions to NEA’s work. The first is the national dimension. And that is the core part of the work that we do, which is how to protect Singapore’s environment. This task is something we have been doing fairly well since Singapore’s independence. Much of the infrastructure and the policies have been put in place over the years. But as we go forward, there are many things we have to re-examine. In terms of whether the infrastructure is adequate and whether the policies are relevant to today’s context. And I think developments in recent years have given greater impetus to the re-examination of many of these fundamentals. When you look at big issues like climate change, there’s always a concern whether you are operating in the context of uncertainty. So what was perhaps done based on rule of thumb, common sense and the level of knowledge that was required in the early years of our development is no longer sufficient.”

— Andrew Tan, CEO, NEA

A decade after its formation, NEA is now gearing up to meet the future — a future where environmental management is expected to be much more complex, more dynamic and fast-paced, where environmental issues are anticipated to be larger in scale, impact and reach.

To get to the starting line, NEA has to re-invigorate its organisational structure, culture and operations as well as its competencies and knowledge level. And these would just be the first steps.

Change is not easy. But over the decade, the agency has built up a firm foundation of organisation excellence, strong operational regimes, a wealth of expertise and a culture of passion and professional dedication. Its efforts have been well-recognised, as the numerous awards it has garnered under its belt since 2002 show – The Quality Management Standard, Singapore Quality Class, People Developer, Public Service Achievement Award, Singapore Service Class and Singapore Innovation Class, just to list some. This continual drive to be better is the cornerstone of NEA’s metamorphosis today.



“Change is the only constant. NEA has to gear up to support change, because you can’t use an existing structure to support something that is new. New skills, new roles, new resources have to be acquired so that we become relevant, responsive and resourceful. We are gearing ourselves to get to the starting line, so that we can execute our blueprint for the future. Such as connecting all our environmental sensors for air, water, weather, so that the public can benefit from early alerts. With the data, we can also run different simulation models for better situational awareness. The information can also be used by different groups, individuals, research institutes and businesses.”

— S Satish Appoo, Director, Strategic Development and Transformation Office and Joint Operations & Planning, NEA



PEOPLE EXCELLENCE

An organisation is only as good as its people and every member of the staff in NEA plays a part in the agency’s mandate to protect and sustain the environment. Forward-looking and excellent human resource management and development thus hold the key to the agency’s transformation.

Work in NEA is diverse, challenging, and meaningful. NEA employees possess a strong sense of purpose because they know the impact of their work on the daily lives of Singaporeans. The agency strives to attract talent with a passion for the environment. Staff who join NEA with limited knowledge of environmental protection inevitably nurture their love for the environment over time. Progressive human resource policies and schemes such as learning and career development opportunities, varied work-life harmony initiatives and age-friendly employment practices are in place to ensure a conducive work environment.

Future-readiness calls for having the right people and work culture. Passion for the environment, commitment to the agency’s vision and mission, and work ethics that resonate with NEA’s – these are what will make the difference. In the next decade, the agency will focus on raising the skill levels and competencies of its workforce to better tackle the strategic challenges ahead. It will also focus on creating a first-class, sustainable workforce and a workplace where passionate environment advocates strive together in a dynamic, challenging field to serve Singapore.

WALKING THE TALK ON SUSTAINABILITY

Walk the talk, lead by example – this is all the more paramount as NEA gets down to executing its blueprint for long-term sustainability.

NEA actively encourages eco-friendly workplace practices and puts in place resource-efficient measures. For example, it installed

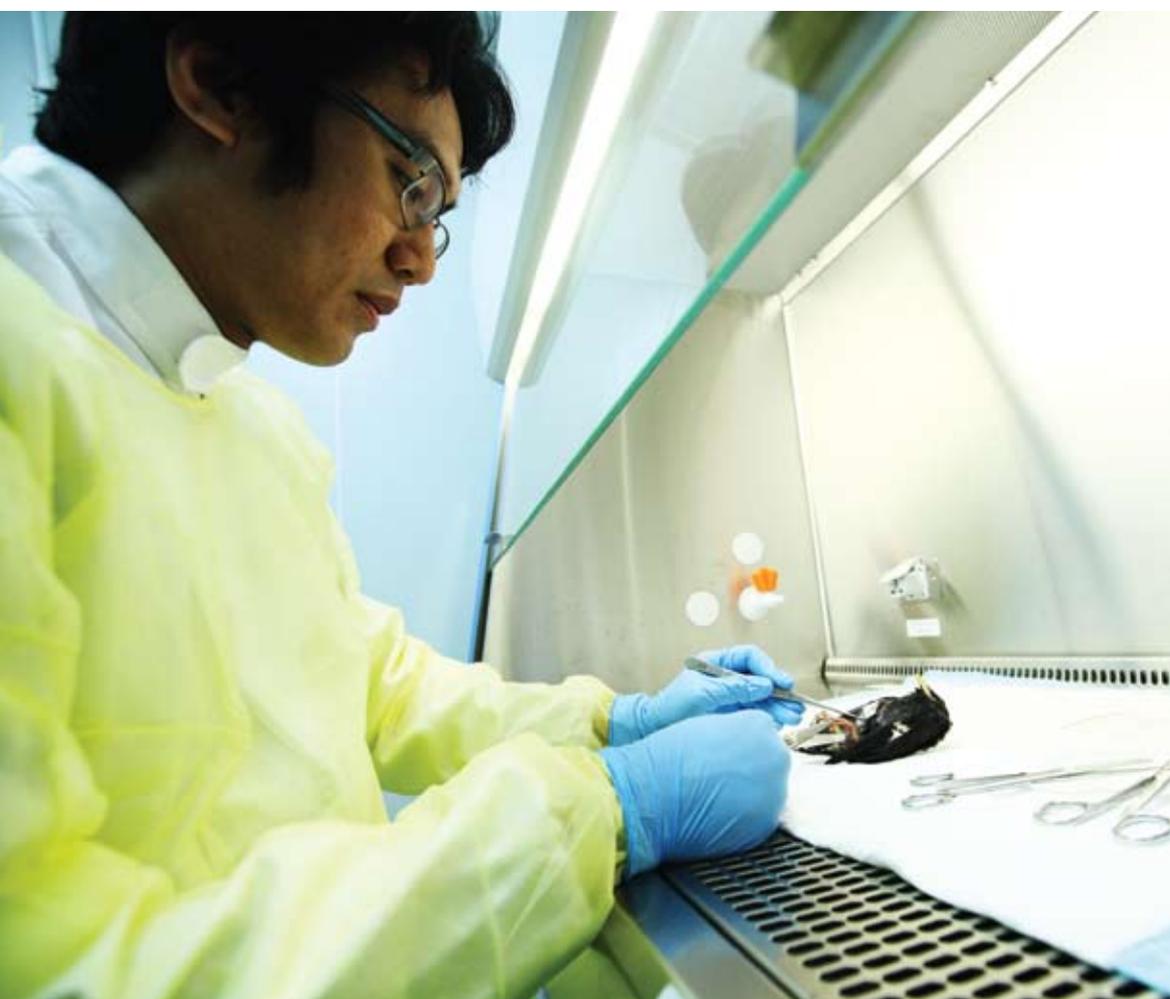
systems to monitor and review its water and electricity consumption patterns and fixed flow regulators on the taps in all its premises including hawker centres. Since 2005, all its offices have been awarded the Eco-Office Label by the Singapore Environment Council for its environmentally friendly workplace measures. In 2010, all of NEA’s premises were awarded the Water Efficient Building Label. In 2011, NEA completed a purpose-built meteorological service facility along Kim Chuan Road. The agency took care to equip the facility with green features such as solar panels and a rain harvesting system to irrigate the building’s greenery.

Creating and maintaining a sustainable workplace needs continual perseverance, and NEA has stepped up efforts to consolidate and spearhead all sustainability initiatives since 2010.

OPERATIONAL EXCELLENCE

In a world where environmental issues and crises are getting more complex, becoming future-ready hinges on NEA’s capacity for situational awareness and its ability to respond fast and effectively during environmental incidents and emergencies.

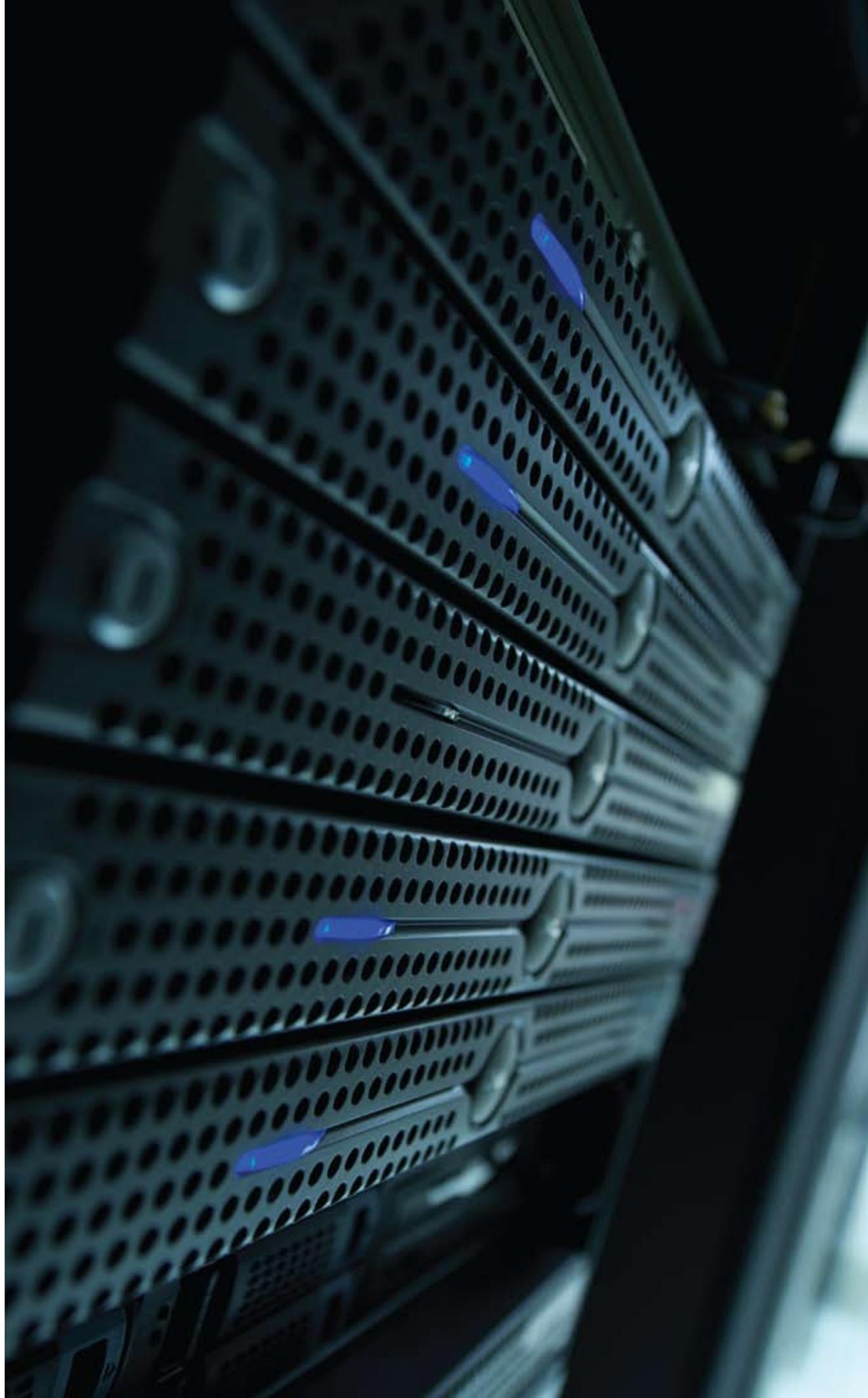
To intensify its ability to monitor the environment and respond to potential incidents, NEA has launched several exciting projects. These include piloting state-of-the-art sensors for more precise, continuous monitoring, constructing a new operations command centre to coordinate NEA’s ground operations in all parts of Singapore and building up NEA’s capacities in a myriad of fields such as nuclear science, food hygiene and climate science. These projects, when completed, will bring about a faster, nimbler, future-ready agency with 24/7 standby readiness, with a dedicated team of officers who will help monitor the environment.



A VISION FOR TECHNOLOGY

As environmental issues grow more complex, technology will take on an increasingly crucial role in providing solutions. Recognising that technological applications take time to incubate, NEA has embarked on envisioning exercises. During these exercises, it projects future challenges and defines the competencies required to address them. Next, the agency assesses if it has such competencies in place. Where gaps exist, NEA puts steps in place to bridge them, including identifying possible technologies that can strengthen NEA's future operational capabilities. Once these technologies are identified, the agency incubates them through various means.

For example, NEA invests heavily in budding environmental technology and funds relevant research and development projects. It partners other educational and research institutes to explore solutions and encourages the industry to practise innovation. Since 2009, NEA has also been focusing on addressing its long-term technological needs and coordinating more exciting projects for the future.



NEA's Contact Centre, one of the busiest of such services in the government, is an important channel for the public. It operates round the clock, handling more than 600 calls a day, up from an average of 400 calls in 2002. During environmental and public health incidents such as dengue outbreaks, the calls can spike to more than 800 a day.

PROVIDING CHANNELS

All you need is one inconsiderate person to provide a safe breeding spot for *Aedes aegypti*, and dengue can break out in the neighbourhood.

The action of one has the potential to impact many others in today's environment. In NEA's bid to build a more environmentally sustainable future for Singaporeans, the agency has to meet the challenge of reaching out to every single individual. Communication is central to its efforts to heighten awareness of impending environmental problems and to increase the sense of urgency and personal responsibility for the environment.

To send the message out, NEA utilises diverse channels and methods. It partners the Ministry of Manpower to inform foreign workers on dengue prevention steps, and recruits foreign workers to be ambassadors in their community to battle littering. It reaches out to domestic helpers as well to educate them on dengue prevention.

Web, social media and even phone applications are put to good use for engaging the technologically savvy as NEA goes beyond traditional print media. Educational materials, guidelines, information kits for the general public and industries covering topics varying from recycling and waste minimisation to food hygiene, and weather information are just a mouse's click away on NEA's website. To make information on the environment even more accessible, NEA launched a smartphone application in 2011. The application allows users to stay updated on the latest public health and environmental information, such as dengue clusters, track records of food caterers and even lists of licensed pest control operators.

Well-known figures are also roped in for the cause. In 2010, Edmund Chen, a former Mediacorp artiste,



NEA's smartphone application, myENV, was launched in 2011.

was appointed as NEA's Cleanliness Ambassador to influence the community to exercise their social responsibility in keeping Singapore clean.

NEA provides feedback channels on its website and myENV application as well so that members of the public can reach NEA easily at all times to give feedback, raise concerns and contribute their ideas on caring for the environment. The agency also responds to communication sent via letters, emails and faxes, and to relevant issues raised in newspaper forums.

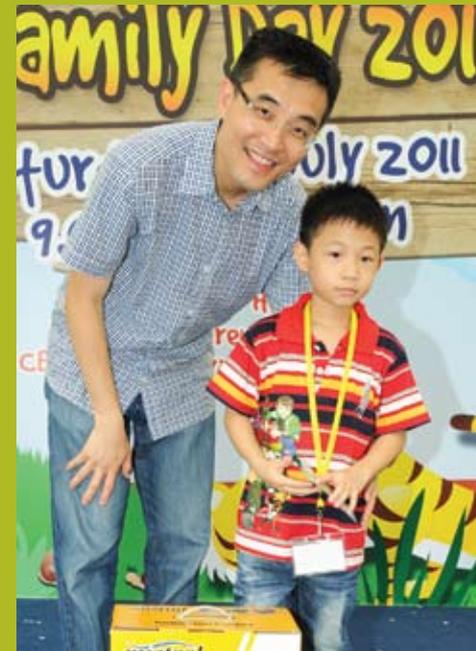
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The nature of the calls varies widely, from giving feedback to appeals and enquiries on issues ranging from mosquitoes and rats to noise and smells. It is not uncommon for the centre to receive calls which are unrelated to NEA's scope of work, and even calls from lonely folks who just want to chat. And remarkably, the most common call is for NEA to deal with perceived offences. Officers in this line have to be highly trained to handle the calls efficiently and professionally. Every call is logged and tracked so that NEA can monitor the quality of the response.



AN ENGAGED, SOCIALLY RESPONSIBLE WORKFORCE

As NEA engages the community to be more environmentally and socially conscious, it walks the talk by embracing corporate social responsibility through fostering an engaged, socially responsible workforce. Through initiatives such as the annual Semakau Run and Vertical Challenge, NEA encourages staff volunteerism and raises funds for environmental non-governmental organisations and its adopted charities, the Singapore Children's Society and the Children's Cancer Foundation.



A Blueprint For Sustainability

“The diversity in our roles reflects the importance of NEA in many areas that may not seem apparent at first glance, and which may even be taken for granted at most times. But it’s a very important job, to make sure that every morning when you step out of the door, you see that the place is clean. That you feel safe coming back home because you are not going to be bitten by mosquitoes, and that your waste is collected on time and every time. And when you enjoy your weekend, the sky is blue, you can go to the beach, and you see other fellow Singaporeans also similarly being as responsible as you are in terms of keeping the environment clean. That would be the ideal vision.”

— Andrew Tan, CEO, NEA

Transformation is necessary for NEA to keep abreast of evolving times. It is also crucial for the agency to begin executing its blueprint to realise its vision for our environmental future.

Coming up with plans for sustainability has always been a key pillar in the story of Singapore’s environment. This became even more central when the Singapore Green Plan was inaugurated by ENV (present-day MEWR) in 1992, followed by the Singapore Green Plan 2012 released in 2002 and revised in 2006. Important targets for Singapore’s environmental performance were set in the plans, which also served as a guide to balance environmental and developmental needs.

Environmental sustainability took centre stage when the Sustainable Development Blueprint was released in 2009. A result of close collaboration among several ministries and agencies, the blueprint charted the way for long-term sustainable development.

NEA’s road map supports the broader objectives of the Sustainable Development Blueprint. It fills in the interim and long-term targets and how NEA will achieve them. Above all, it rests on a vision of our future — one of a beautiful, clean and green environment with the best air quality, clean water and clean land, a Singapore with high standards of public health, and a society that makes the most and best use of its resources.





“Achieving sustainable development enables us to grow our economy whilst safeguarding our living and natural environment. Today, Singaporeans enjoy a high quality environment in a vibrant and prosperous city state. This was achieved as a result of strong political commitment supported by good planning, constant innovation and effective implementation.”

— Tan Yong Soon, Permanent Secretary, MEWR (2004 - 2010) at the launch of Nanyang Environment & Water Research Institute Centres, 5 October 2009



CLEAN, HEALTHY AND CONDUCIVE SURROUNDINGS

Singapore is one of the most urbanised environments in the world today. But this has not stopped NEA from setting even higher standards for our air, water and land in time to come. More stringent standards based on international benchmarks will be implemented for our ambient air quality and coastal and inland waters. When it comes to public health and hygiene, NEA has progressive targets to bring about a litter-free, smoke-free environment, with more effective vector control and food hygiene surveillance. Noise pollution will be more tightly monitored and controlled so as to protect public health and to create more comfortable living surroundings.

CHERISHING OUR RESOURCES

Earth's resources are finite. For long-term sustainability, we need to move towards a society where every resource is cherished and used prudently. As Singapore grows more affluent, nurturing mindsets to conserve resources will likewise grow more challenging.

As such, NEA will be making more moves to reduce the waste we generate, encourage resource recovery and promote recycling. More schemes will also be put in place to encourage and drive energy efficiency in Singapore.

BETTER PUBLIC SERVICE

Need to know if the weather is going to be fine for your outdoor event this weekend? Well, meteorological services are to receive a boost to provide more timely, reliable and accessible information in the near future. Singapore is also poised to become a climate research hub in the region.

NEA is gearing up to be even more service-oriented in the future. Hawker centres, an icon of Singapore, will be more exciting places in time to come. On top of being places of affordable, clean food, hawker centres of the future will also be even better places for community bonding, with facilities in place for the aged, young and disabled. Eco-friendly features will also be integrated with these centres.

A HUB FOR THE WORLD

Singapore has already taken firm steps to establish itself as an environment hub. Going forward, more attention will be given to build Singapore as a regional and international environmental centre. NEA will nurture and groom more local companies to develop cost-effective environmental solutions for future challenges. It will also continue to build capacities within Singapore, so that we may continue to share our environmental solutions with other parts of the world.



Our Environmental Future

“We have been able to overcome our limitations and create something we can be proud of. The limitations of land, the limitations of water, the limitations of many things — we can overcome it, we have overcome it. We can continue to overcome our limitations even as society and issues get more complex, and we have proof of it. We have nothing. But out of nothing, we have created something we can be proud of. And that is the story of Singapore.”

— Dr Yaacob Ibrahim, Minister for the Environment and Water Resources (2004 - 2011)

Singapore has always been an anomaly. With its natural limitations, it is a marvel how far it has come.

Its story consistently tells of the will to overcome all odds to survive and excel. From an entrepôt to global financial centre, from backwaters to metropolis, from a dirty, polluted island to a clean, liveable place – these transformations demonstrate time and again, that as long as we do not leave anything to chance, Singapore can do it.

In many aspects, the quality of our environment has become better since NEA’s formation in 2002. Our ambient air quality has improved, guidelines for recreational water quality are now stricter and standards for pollution control have grown more stringent. Surveillance of public health and hygiene has become even more rigorous. NEA’s scientists have conducted significant research in various areas, bringing considerable benefits to public and environmental health. The agency has also played a leading role in galvanising our local environment industry and contributed to the rise of Singapore as a regional environment hub.

At the same time, NEA has transformed radically. Today, it no longer relies on enforcement alone. Over the last decade, it has successfully nurtured an inclusive culture where ordinary Singaporeans from different spheres work together with NEA to bring about a clean, green Singapore.

Resting on its laurels has never really been the agency’s approach. Safeguarding a clean and healthy environment, nurturing an environmentally conscious society where every individual cherishes Singapore’s beautiful, liveable surroundings – this continues to be NEA’s core mission. The agency has also renewed and transformed itself to keep up with times and meet impending challenges effectively.

From the leaders of the agency to officers in field work, every single person in NEA has made a difference. Their passion and commitment towards their work form the bedrock of the quality of environment we enjoy. But their work alone is not enough. Singapore’s environmental sustainability hinges upon each and every Singaporean now. This vision of an even more beautiful, clean, green city is possible, if we stand together to cherish and safeguard our environment, for ourselves and for future generations to come.





“In general, keeping the environment safe for human beings is NEA’s primary responsibility. It involves first making sure we have the talent pool for the diverse areas of work. We need to make sure that these people are backed up by science, the laboratories, access to the latest information so that they can do their jobs well. This is also an evolving field, whether it is food safety or infections, or the quality of air or water. You need to have access to the latest technology and latest scientific information. NEA also needs to continue its role in public education and in engaging the public so that people become part of the solution. So it is all about creating a network of highly motivated staff, publishing real-time accurate information and exploiting the best technology available to protect our fellow Singaporeans from current and future environmental challenges.”

— Dr Vivian Balakrishnan, Minister for the Environment and Water Resources

