The government gave the task of greening Singapore to the Parks and Recreation Division, formed in 1974 within the Ministry of National Development (MND). Its first head was Wong Yew Kwan, trans-
ferred from the Primary Production Department (PPD). Two years later, in 1976, when the Parks and Recreation “Division” became a “Department” (PRD), Wong became the first Commissioner of Parks and Recreation. His team was small, some 40 strong. It included only a handful of local graduates and one graduate botanist, although a number of recruits had Taiwanese degrees in horticulture or agriculture.

Moving as One
For the greening of Singapore to succeed, the whole of government had to pull in the same direction. Planting had to be a priority and not sidelined. Ensuring this was, and still is, the job of the Garden City Action Committee (GCAC), originally formed in the late 1960s. Its members represent all the ministries and statutory boards contributing to the greening effort. It hears reports on operational and maintenance issues, streetscape greening, developments affecting the parks, the Singapore Botanic Gardens, and the nature reserves—no aspect of the greening of Singapore escapes its notice.

In 1978, according to the first parks commissioner Wong Yew Kwan, the Prime Minister called a meeting and made it clear to civil servants that they should channel increased resources to it. By 1980, the budget was nearly 10 times what it had been in 1973, after inflation is taken into account.

What to Plant?
Up to the end of the 1970s, PRD officers transplanted young trees from trees banks, allowing large areas to be greened up quickly. Rain Trees and Angsanas were particularly successful.

Saplings transplanted into a city environment when they are young and small do not create a lush, green effect immediately. Saplings are sometimes planted out first in tree banks on vacant land and moved to their final positions when they have grown bigger. Researchers in Singapore have taken the “instant tree” concept further, growing trees in extra-large containers, 1.5 metres high and 2.0 metres in diameter. This approach makes sense, say, when road widening is planned for the future. Trees in containers can go into position temporarily and move somewhere else later.

A More Colourful City
In 1979, PRD began a new phase in the development of Singapore as a garden city. There was a need for more variety. This came in the form of colourful flowers and foliage.

By the end of 1980, the PRD had planted 56,000 flowering trees. In 1984, nearly two-thirds of all the new plantings in Singapore were flowering shrubs. The emphasis on colour and variety has been maintained to this day.

A Softer Touch
All over the world, cities built mostly of concrete have become drab. Apart from being ugly, bare concrete reflects glare and heat. Singapore has worked to avoid these effects, to create pleasant surround-

ings for living and working.

The surfaces of concrete structures were roughened and given a coat of stucco. Climbing plants became widespread, and today, Climbing Fig (Ficus pumila) softens the look of concrete all over Singapore. The solution was “instant trees”: PRD officers transplanted young trees from tree banks, allowing large areas to be greened up quickly. Rain Trees and Angsanas were particularly successful.

The need to try out a different kind of organisation led to the forma-
tion of NParks in 1990. Dr. Tan wanted, in particular, to restore profes-
sional skills to their rightful place and so reinstate Singapore Botanic Gardens in its professional role. This, in his opinion, was only achiev-
able outside the PRD. The permanent secretary of MND agreed to the formation of a new statutory board. As Dr. Tan was already secretary to the Nature Reserves Board, his new portfolio included the reserves and also Fort Canning Park as CEO. In 1996, NParks took over the entire park-management role of PRD.
By the end of 1980, the Parks and Recreation Department had planted 56,000 flowering trees. In 1984, nearly two-thirds of all new plantings in Singapore were flowering shrubs.

The Importance of Expertise
In 1972, the Singapore Botanic Gardens set up a School of Ornamental Horticulture, offering full- and part-time diploma courses. Initially, it trained around 10 people annually to work on the greening of Singapore. Ideally, these diplomas would have been reflected in salaries. In fact, they were not seen as equivalents to college qualifications, and so training shifted to the tertiary institutions: Ngee Ann Polytechnic, in particular.

More recently, NParks revived the idea of having its own training institution. As a result, with input from the Singapore Workforce Development Agency, the Centre for Urban Greenery and Ecology (CUGE) opened in 2007. It provides skills training and professional certification for the landscaping industry in general. In its first five years, it trained more than 6,000 locals.

CUGE also carries out research, its programmes cover: the performance of plants, such as different kinds of grass, in urban conditions; the integration of greening, including skyscraper greening, into the built environment; and urban ecology, including pests and disease.

The landscaping industry itself plays a central role in the development of management and technical skills and the maintenance of standards. Its efforts are coordinated through the Landscape Industry Association (Singapore) (LIAS).

Greening the Streets
From the 1970s onwards, the network of streets and roads lined by greenery steadily increased. So did the responsibilities of the people who planted and maintained them. Today, around 129 staff, plus contractors and their labourers, are backed by an annual budget of some 21 million SGD. According to former streetscape director Simon Longman, “it’s the standard of maintenance that justifies using public resources at this sort of level. It also distinguishes Singapore from some other countries that have tried to follow the greening path.”

Gardening in the Sky
When space for gardens at ground level is limited, as it is in Singapore, you go upwards. Showing the creativity that has increasingly charac-

1. A tree being moved by crane to be transplanted (Photo: Land Transport Authority).
2. The planting of bougainvilleas along overhead bridges and flyovers was an important innovation. It made a big impression on visitors and still does (Photo: National Parks Board).
3. Assessing decay in a tree, using a resistograph, which measures physical resistance to drilling (Photo: National Parks Board).
4. The rooftop garden at Orchard Central shopping mall offers breathtaking views of the city (Photo: Elmich Pte Ltd).