



## A ROOFTOP FARM GROWS IN SIAM SQUARE >> XP, 12B

# Chilling out on a GREEN ROOF

PERCHED ON TOP OF A SIAM SQUARE SHOPPING MALL, SIAM GREEN SKY SHOWS THAT ROOFTOP GARDENS ARE A VIABLE ALTERNATIVE FOR BANGKOK

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THE NATION

IN PARIS, top chefs are now growing their vegetables and herbs on the roof. Montreal is even more advanced, having promoted rooftops as new and productive green spaces for more than 12 years and boasting hundreds of urban farms across the city. Yet although recognised as an effective way of reducing the urban "heat island" effect, most private enterprises and government agencies in Asia overlook the benefits of green roofs and prefer to use air-conditioning rather than natural means to keep the internal temperature of a building steady throughout the year.

Siam Square One, a new mall in Siam Square, is determined to change that way of thinking with Siam Green Sky, which it describes as an agriculture learning centre.

"We're actually not the first to install a green roof. Laksi District Office has a thriving city farm and is a learning centre for rooftop gardens. Ours, though, is the largest green roof in Thailand," says Kotchakorn Voraakhom, a special instructor at the department of landscape architecture at Chulalongkorn University and managing director of Land Process. "Most of the others simply involve flowerpots on the roof, which is very different from what we are doing."



Hands-on planting workshops ensure that future generations of urbanites will know how to cultivate rice.

"The US, Europe, Singapore and Japan all have green roofs. In some countries, Singapore for instance, it's incorporated in the law. Owners of buildings are rewarded with a tax reduction when they add more green areas to the city," says Kotchakorn. It's much harder in Thailand but Siam Square One is showing that it can be done. I really believe it's good for the city. The climate in Thailand allows us to grow almost anything. So why is it that only a handful of buildings in this country have a green roof?

"The reason has to do with attitude. First, it's hard for Thai people to get their minds around the green roof concept. That's obvious from the questions we are asked, like 'won't water seep into the building?' Another reason is the environment. Thailand has a lot of air pollution and a poorly balanced urban ecosystem," she adds.

The idea for Siam Green Sky was conceived three years ago when construction started on the mall. The building is





Left: In addition to providing food, the 1.5-rai Siam Green Sky offers a nature-like oasis in the heart of the city.

designed rather like a large flowerpot, meaning that the surface of the rooftop is in harmony with the building structure.

Despite the extremely high land prices in the area – as much as Bt2 million a square wah – Chulalongkorn University Property Management was determined to add to the city's paucity of green space.

Siam Green Sky is located on 1.5 rai with a concrete deck and is divided into three parts – herb garden, vegetable plot and rice terrace.

Siam Green Sky is located on 1.5 rai with a concrete deck and is divided into three areas. One is devoted to progressive farming and showcases solar farming technology. Another is for demonstrations of making organic fertilisers while the third is a showcase of a kitchen garden, growing only species that require light maintenance.

Gabion structures divide the gardening plots and serve as pathways between them. Some of the material

used in these low rock walls is recycled from the rubble of the Siam Theatre, the historic cinema that stood on the Siam Square One site until it burned down during the 2010 political unrest.

There is also attractive graffiti, courtesy of artist Patcharapol Tangrue, aka AlexFaceBkk, FaWalai and others.

"The concept for building this open mall was to maintain a feeling of walking outdoors through Siam Square in hot and rainy weather. Siam Green Sky of course required technical additions, such as the installation of a membrane with floor drain to ensure waterproofing and a system for flood reduction," says Kotchakorn. "We were

advised by experts from the university's botany department and the School of Agricultural Resources. We've installed solar cells to promote renewable energy among urban folk. We also have special fertiliser-producing machinery, which recycles agricultural waste.

"Of course, we also faced many challenges. Because the building was designed to slope, we introduced rice terraces to reduce soil run-off from the rains. We have stuck to the wisdom of our ancestors. We have chosen to

focus on rice and herbaceous plants that can be eaten, which we hope will inspire residents of the city to grow their own vegetables even if only on a balcony," Kotchakorn says.

## UP ON THE FARM

- Siam Green Sky walking tours are offered at 10.30am, 2.30pm and 4.30 every Wednesday and Saturday.
- There are hands-on planting workshops and the Siam Green Market every third Saturday and Sunday.
- Bookings are recommended. For details, call (099) 001 8514 or e-mail [Siamgreensky@gmail.com](mailto:Siamgreensky@gmail.com).
- Find out more at [www.Facebook.com/siamgreensky](http://www.Facebook.com/siamgreensky).

Siam Square One is no longer only a place to grab a fast-food snack, shop for the latest gear and or cram at a tutorial school. It's also the unlikely venue for agricultural learning, with workshops and walking tours. The next workshop and market are scheduled for June 20.

"This year, I am promoting edible greens," says Kotchakorn. "We called the space Siam Green Sky because we want the Bangkok sky to become green."



Above: Organic produce is sold at the Siam Green Market every third Saturday and Sunday.





Chulalongkorn University's Kotchakorn Voraakhom is the brains behind Siam Green Sky, a mini-farm on the roof of the Siam Square One shopping mall.