

Future Cities Laboratory

Green is the new gold in housing

20.04.2018

On average, people would pay 3% more to live in a neighbourhood with managed greenery, reveals a paper in *Ecological Economics* by FCL's Richard Belcher and Asst Prof Ryan Chisholm from NUS.



The presence of green spaces can bring up the value of a public housing apartment. This is according to a study by Mr Richard Belcher from the Future Cities Laboratory at the Singapore-ETH Centre, and his former Master's degree supervisor Assistant Professor Ryan Chisholm, who is from the Department of Biological Sciences in the National University of Singapore's (NUS) Faculty of Science.

The study, which was based on the sale prices of 15,962 apartments on Singapore's Housing and Development Board (HDB) resale market over a 13-month period, found that HDB apartments with more greenspace within 1,600 m had, on average, higher resale prices. On average 3% of a public housing apartment's resale value (S\$11,200) was attributable to nearby greenspaces. This amounts to a total of S\$179 million for all public housing apartments sold during the period of April 2013 and April 2014 when the study was conducted.

(FCL) FUTURE CITIES LABORATORY 未来城市实验室

The authors

Richard BELCHER

Asst Prof Ryan CHISOLM

About the paper

Tropical Vegetation and Residential Property Value: A Hedonic Pricing Analysis in Singapore

In The Media

Straits Times: Green the colour of money where property is concerned

Lianhe Zaobao: 研究: 靠近绿地组屋 买家愿付更高转售价

95.8 Radio station: 调查: 组屋周围多绿化空间 屋价平均高出3%

Press release

[Download press release \(PDF, 1.7 MB\)](#)

Interestingly, this positive effect came almost entirely from managed vegetation, such as public parks, park connectors, vegetation surrounding residential estates, and managed street trees.

“These results vindicate Singapore’s policy of providing extensive green spaces for residents’ recreation, and could encourage the provision of more green spaces in tropical cities worldwide,” said Asst Prof Chisholm.

In contrast, for apartments in close proximity to primary or secondary forests, mangrove forests, and freshwater marshes, which are collectively known as ‘high conservation value vegetation’, the effect on prices was varied. Apartment buyers seem to value these more natural vegetation types only when there is relatively little managed vegetation nearby.

“The lower value placed on proximity to high conservation value forests indicate that to further increase biodiversity in tropical cities, education programmes should inform residents of the real benefits of having natural high conservation value forests in their neighbourhood,” explained Mr Belcher.

“Overall, the value we found may be undervalued, because homebuyers may not be fully informed of the benefits of the ecosystem services provided by greenery. For example, having more greenery on and around buildings can lower surface and air temperatures by providing shade and through evapotranspiration, thereby reducing the need, and hence the cost of air-conditioning,” he added.

As a city grows, surrounding vegetation tends to eventually make way for development, especially in the tropics, where many cities have grown quickly with a lack of integrated planning. In order to reconcile the protection of areas with high conservation status and maximise utility to homebuyers, the researchers pointed out that new public towns should be located away from areas that are identified for conservation, and should continue to provide high quantities of managed vegetation.

Asst Prof Chisholm elaborated, “If too little green space remains within a city, human well-being can suffer because of a lack of opportunities for recreation and to connect with nature. From a conservation perspective, the rapid loss of green spaces in tropical cities is of particular concern because this entails high biodiversity loss.”

Moving forward, there is a need to look into a comprehensive education programme, and for further research into the economic value of green spaces for city residents to be carried out, to encourage appropriate city planning and judicious preservation of green spaces.



Belcher, R. N. and R. A. Chisholm (2018). Tropical vegetation and residential property value: a hedonic pricing analysis in Singapore. *Ecological Economics* 149:149–159

Page URL: <http://www.fcl.ethz.ch/news/news/2018/04/green-is-the-new-gold-in-housing-.html>
24.04.2018

© 2018 [Eidgenössische Technische Hochschule Zürich](#)