

USERS' SURVEY

A stratified random sample of 333 residents in Choa Chu Kang new town and 99 office workers in the city area of Singapore were surveyed to obtain information on public attitudes to rooftop garden provision in Singapore. The findings are as follows:

a. Usage rate of rooftop garden

The majority of residents had not visited a rooftop garden even though one might be provided in the vicinity of their neighbourhood. This raises the issue of accessibility to all as well as space for the spectrum of recreational opportunities (Table 4).

Table 4: Usage of rooftop gardens 8.2

Respondents	Visited rooftop garden (%)	Not Visited rooftop garden (%)	Do not know where/what is a rooftop garden (%)
Office worker (99)	45.5	52.5	2
Household with rooftop garden (186)	23.7	73.7	2.7
Household without rooftop garden (147)	10.9	81	8.2

b. Perception of the role and importance of rooftop garden

Opportunities for relaxation and social interaction were the most important motives for visiting rooftop garden among those who visited (Table 5).

More than sixty percent of the respondents viewed the benefit of rooftop garden provision to them and their families as a setting for activities (Table 7).

Most people appreciate more rooftop garden provision for aesthetic reasons (beautification of the environment) and personal leisure (Table 6).

The environmental factors were highlighted in the discussion of the role of rooftop gardens where the majority of respondents suggested that providing a (1) relaxing ambience, (2) absorbing carbon dioxide, (3) reducing air pollution and (4) enhancing aesthetics as the four most important reasons for having rooftop gardens.

Table 5: Motivation for rooftop garden visit

Reason for visit	Office worker (45) %	Household with rooftop garden (43) %	Household without rooftop garden (15) %
To find peace and quietness	35.6	7	26.7
To take the children out	8.9	32.6	20
To get some exercise	4.4	27.9	0
Because friends were visiting	13.3	18.5	0
To get out of the house/office	11.1	2.3	20
To enjoy the company of others	15.6	7	13.3
Don't know	4.4	0	6.7
Other reasons e.g. to smoke, happen to be there	6.7	4.7	13.3

Table 6: Reasons for more rooftop garden provision

Reason for more rooftop garden provision	Office worker (87) %	Household with rooftop garden (158) %	Household without rooftop garden (114) %
Beautify the environment	17.2	16.5	21.9
Better air quality	4.6	7.6	0.9
Better living environment	10.3	4.4	5.3
Socialisation and neighbourly relations	0	2.5	0
Accessibility and Convenience	3.4	1.3	2.6
Reduce temperature	2.3	0.6	0.9
Entertainment and exercise	0	3.2	1.8
Greenery and nature	10.3	12.0	10.5
Leisure and relaxation	20.7	23.4	16.7
Saving and Better utilisation of space	10.3	5.1	22.8
Other reasons	20.7	23.4	16.7

Table 7: Benefits of rooftop garden provision Facilities and design desired in rooftop garden

Benefits of rooftop garden	Office worker (99) %	Household with rooftop garden (186) %	Household without rooftop garden (147) %
Setting for activities	76.8	65.1	65.3
Better living environment	5.1	5.9	5.4
Energy efficiency (cooling)	3	0	0.7
Better air quality	2	2.7	0
Space efficiency (building design)	2	0.5	0.7
Greenery/open space feeling	1	1.6	3.4
More accessible for people	1	1.6	2.7
Others, including no comment	9.1	22.6	21.8

FACILITIES AND DESIGN DESIRED IN ROOFTOP GARDEN

They offered several suggestions for improving the facilities and space of rooftop garden: space, uniqueness in design, exercise complex, food and drink outlets were some of the desired facilities and features.

Table 8: Useful facilities in rooftop garden

	Not so useful	Fairly	Very useful	Mean of 5-point rating	Standard deviation
Office worker %					
Landscaping (99)	2	21.2	76/8	4.11	0.807
Sitting area (99)	4	20.2	75.8	4.09	0.893
Water features like fountain, pond (98)				3.85	1.213
Pebble walk (98)	15.3	34.7	50	3.43	1.015
Pergola (95)	17.9	41.1	41	3.34	1.027
Toddlers play facility (99)	38.4	30.3	31.4	2.88	1.327
Household with rooftop garden %					
Sitting area (186)	4.8	15.1	80.1	4.11	0.888
Landscaping (185)	9.2	27.6	62.7	3.79	1.048
Pebble walk (186)	12.9	29	58	3.71	1.086
Pergola (181)	12.1	31.5	56.4	3.62	1.018
Water features like fountain, pond (185)	20.5	29.2	50.2	3.42	1.218
Toddlers play facility (186)	29.6	23.1	47.4	3.26	1.269
Household without rooftop garden %					
Sitting area (147)	9.5	11.6	78.9	4.19	1.042
Landscaping (146)	8.9	21.9	69.2	3.96	1.030
Water features like fountain, pond (147)	16.3	21.1	62.6	3.72	1.226
Pebble walk (146)	14.4	23.3	62.3	3.73	1.059
Pergola (140)	9.3	28.6	62.2	3.77	1.055
Toddlers play facility (147)	23.8	21.1	55.1	3.47	1.336

Table 9: Preferred location of rooftop garden

Preferred location of rooftop garden	Office worker (99) %	Household with rooftop garden (186) %	Household without rooftop garden (147) %
Top of apartment/ office block	76.8	51.6	54.4
Top of multi-storey car park	18.2	44.6	42.2
Top of bin centre	1.0	1.2	0.7
Others	4.0	2.2	2.0

Table 10: Size of rooftop garden

Size of rooftop garden	Office worker (99) %	Household with rooftop garden (186) %	Household without rooftop garden (147) %
Length of a 10 - storey slab block	53.5	64.0	40.8
Half-length of a 10-storey slab block	30.3	30.1	49.0
Quarter-length of a 10-storey slab block	8.1	2.7	4.1
Others	8.1	2.7	5.4