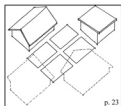
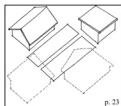
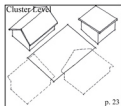


## Part 1: Introduction

This section is developed to integrate Urban Agriculture in situations of existing housing settlements. The main challenge in existing settlements is the lack of open spaces due to their high densities. The need is to analyze and evaluate the existing situation and to explore the possibility of introducing Urban Agriculture in even the most difficult scenarios. The section looks at UA at three scales: the macro site level, the intermediate cluster level, and finally, the home level at the micro scale. Each sub-section presents the analysis of the existing space followed by proposals for UA activities.



## Site Level: Mapping

It is important to analyze the existing situation within a settlement to be considered while developing new designs. In the case of a section of Halgaha Kumbura settlement in Colombo, Sri Lanka, mapping at the site level gives useful information about the existing percentages of open and built-up areas. The lot sizes vary within the settlement from less than  $20 \text{ m}^2$  to more than  $40 \text{ m}^2$ . The average size of the existing dwelling units is approximately  $29.60 \text{ m}^2$ .



### PLOTS

1. TOTAL NUM: 183
2. TOTAL AREA: 7413 M2
3. SIZE(< 20 M2): 39 (21%)
4. SIZE(20-30 M2): 47 (26%)
5. SIZE(30-40 M2): 28 (15%)
6. SIZE(>40 M2): 69 (38%)

### HOUSES

1. TOTAL NUM: 175
2. TOTAL AREA: 5174 M2
3. AVERAGE SIZE: 29.6 M2
4. AVERAGE HOUSES BY PLOTS: 70%

### OPEN SPACE

1. TOTAL AREA: 2239 M2
2. AVERAGE OPEN SPACE BY PLOT: 12 M2
3. SIZE(=0M2): 89 (51%)
3. SIZE(<2.5M2): 2 (1%)
3. SIZE(2.5-5M2): 6 (3%)
4. SIZE(5-7.5M2): 14 (8%)
4. SIZE(>7.5M2): 63 (36%)

The high density of the built-up area becomes evident from the fact that 51% of the dwelling units do not have access to any open space. In addition those spaces that are available for growing are often small and difficult to access.

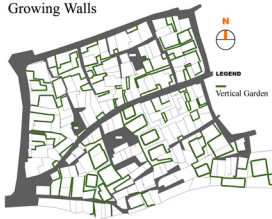
This is an important realization which demands the proposal to include alternative growing techniques in small or non-existent horizontal open spaces.

Vertical growing, such as along walls and fences, in addition to using pergolas and roof-tops can be alternative means of growing in the absence of horizontal gardens.

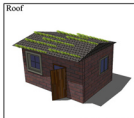
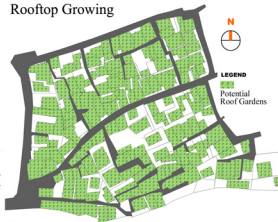
Access to open spaces can also be given to individual households by converting large open public spaces into community gardens. The aim is to maximize growing possibilities in difficult situations.



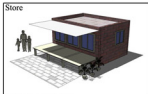
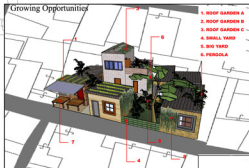
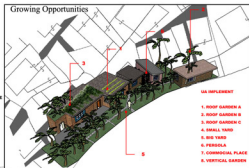
## Growing Walls



## Rooftop Growing



# Commercial Opportunities



Edible Landscape Tools