Peri-urban dynamics and land use planning of Greater Cairo Region in Egypt

Muhammad Salem

Faculty of Urban and Regional Planning
Cairo University, Egypt
Purpose

• What are the peri-urban areas?

• What is the importance of those areas in the context of metropolitan regions?

• What are the key factors of urbanization process in peri-urban areas of GCR?
Definitions

• There are a lot of terminologies are used by scholars to describe the zone of peri-urban.

<table>
<thead>
<tr>
<th>Terminologies</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural-Urban Fringes</td>
<td>(Pryor, 1968)</td>
</tr>
<tr>
<td>Peri-urban Area</td>
<td>(Dutta, 2012)</td>
</tr>
<tr>
<td>Peri-Urban Fringe</td>
<td>(Simon, 2008)</td>
</tr>
<tr>
<td>Peri-urban interface</td>
<td>(Allen, 2003)</td>
</tr>
<tr>
<td>Desakota Regions</td>
<td>(McGee, 1991)</td>
</tr>
<tr>
<td>Urban shadow</td>
<td>(Bryant et al., 1982)</td>
</tr>
</tbody>
</table>
land use pattern of peri-urban areas

• In developing regions, peri-urbanization is partly fuelled by land speculation

• New developments occur in a haphazard manner.

• Pattern of scattered development.

M. Salem, Faculty of Urban and Regional Planning, Cairo University, Egypt
In the light of previous studies, the common criteria of peri-urban areas’ delimitation in developing countries are:

- The proportion of agricultural land use to urban land use was about four to one
- Low densities in comparison with other parts with metropolitan region (300-1000 person/hectare)
- Urban activities is increasing rapidly
- Emergence illegal agricultural land subdivision
- The percentage of non-agriculture workers (20-40%).
- The location were from 20-50 beyond the urban core.

Defining Peri-urban area of GCR

M. Salem, Faculty of Urban and Regional Planning, Cairo University, Egypt
Peri-urban areas share of Greater Cairo's Population

<table>
<thead>
<tr>
<th>Greater Cairo Region</th>
<th>1996 Population</th>
<th>2006 Population</th>
<th>% Annual Increase</th>
<th>Absolute Increase</th>
<th>Share of Absolute Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Agglomeration</td>
<td>10188333</td>
<td>11748240</td>
<td>1.43%</td>
<td>1517102</td>
<td>50.3%</td>
</tr>
<tr>
<td>Peri-urban areas</td>
<td>2857468</td>
<td>3942262</td>
<td>3.27%</td>
<td>1084794</td>
<td>35.9%</td>
</tr>
<tr>
<td>New towns</td>
<td>184695</td>
<td>601767</td>
<td>12.54%</td>
<td>417072</td>
<td>13.8%</td>
</tr>
<tr>
<td>Total GC</td>
<td>13230496</td>
<td>16292269</td>
<td>2.1%</td>
<td>3018968</td>
<td>100%</td>
</tr>
</tbody>
</table>

- Peri-urban areas of GCR represented 24% of region’s population and expected to be a part of metropolitan area of Greater Cairo within a few years.

- The most of increasing of urban lands came from the conversion of farmland in peri-urban areas (the rate reached to 300-600 ha/year)
Peri-urban areas of Greater Cairo

1986  

2001

M. Salem, Faculty of Urban and Regional Planning, Cairo University, Egypt
It is noticeable that the pattern of urbanization for peri-urban areas, just like scattered urban islands (leap frog pattern) and more visible along or near major roads and railways.

M. Salem, Faculty of Urban and Regional Planning, Cairo University, Egypt
Driving forces of urbanization in peri-urban areas

% non-agriculture workers

% illiterates (uneducated)

strong positive correlation (> 0.6)

strong negative correlation (> -0.6)

M. Salem, Faculty of Urban and Regional Planning, Cairo University, Egypt
Driving forces of urbanization in peri-urban areas

**Regional services**

Increasing of urbanization indicators for the high classes categories

**Accessibility**

Low positive correlation (0.22)
Discussion and conclusion

The accuracy of the results of correlation coefficient can be more precise (Ex: The accessibility for these settlements was 0.22 (low positive correlation).

The main reason for the growing attraction of peri-urban areas can be due to:

• affordable housing solutions that the mainly informal housing markets generate in these areas.
• Land accessibility and low price is conducive for informal settlement creep.
• There is less control prohibiting building on agricultural land in these settlements than along peripheries of the core agglomeration of Greater Cairo.

Finally, Approaches for achieving sustainable urban development of peri-urban areas need a future research.

M. Salem, Faculty of Urban and Regional Planning, Cairo University, Egypt
Thank you

Muhammad Salem
Faculty of Urban and Regional Planning
Cairo University, Egypt

E-mail: m.salem@cu.edu.eg