OPEN SPACE AS A NATURAL REMEDY TOOL TO ENHANCE HEALTH AND QUALITY OF LIFE THROUGH PLANNING INTERVENTIONS

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Abstract— The paper puts forth the idea of urban open spaces as tools to enhance health and quality of life. The paper discusses planning interventions and reservations in development plans and that when timely implemented show multifaceted benefits to the citizens. The paper presents case study example of a defunct quarry developed into an open green space through public participation to demonstrate and summarise that timely implementation of development plans improves city revitalisation and restores citizen’s health.

Keywords: Open spaces, natural remedy, timely implementation of development plans

1. INTRODUCTION

All countries spend millions of money towards infrastructure to enhance the quality of life of all citizens. Open green spaces are an important part of all plans aimed at the development of cities. Modern day lifestyle is associated with stress, inadequate physical activities and exercise and exposure to environmental hazards. Large open spaces without any built development and which is accessible to the public acts as lungs of the city by providing the much needed open area showing multiple benefits.

Large open spaces are natural remedies to various issues. The open green spaces provide opportunities for inner city revitalisation, balancing of eco system and biodiversity, boosting of local economies to attract tourism. Open spaces are a catalyst of a sense of community and mental satisfaction boosting health of the citizens

Ranking of countries as per percentage of green space Source: Google search

<table>
<thead>
<tr>
<th>Rank</th>
<th>City</th>
<th>Country</th>
<th>Green space (percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Moscow</td>
<td>Russia</td>
<td>54%</td>
</tr>
<tr>
<td>2</td>
<td>Singapore</td>
<td>Singapore</td>
<td>47%</td>
</tr>
<tr>
<td>3</td>
<td>Sydney</td>
<td>Australia</td>
<td>46%</td>
</tr>
<tr>
<td>4</td>
<td>Vienna</td>
<td>Austria</td>
<td>45.5%</td>
</tr>
<tr>
<td>5</td>
<td>Shenzhen</td>
<td>China</td>
<td>45%</td>
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<tr>
<td>6</td>
<td>Hong Kong</td>
<td>Hong Kong</td>
<td>40%</td>
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<tr>
<td>7</td>
<td>Stockholm</td>
<td>Sweden</td>
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<tr>
<td>8</td>
<td>Madrid</td>
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<tr>
<td>9</td>
<td>Rome</td>
<td>Italy</td>
<td>34.8%</td>
</tr>
<tr>
<td>10</td>
<td>London</td>
<td>United Kingdom</td>
<td>33%</td>
</tr>
</tbody>
</table>
Health expenditure per capita of different countries
Source: https://en.wikipedia.org/wiki/List_of_countries_by_total_health_expenditure_per_capita

Health care cost as a percentage of GDP
World health Organisation’s policies relating to health and open spaces WHO (36) recommends 9m square area of green open space per individual. Countries all over the globe strive to maintain these parameters of open space per capita to help improve the quality of life through good health benefits of open spaces which act as lungs of the cities to balance out the pollution and health hazards of modern day living. Open spaces have shown to visually improve the city’s aesthetics and mental as well as cardiovascular health of the citizens.

Public Reservations in Development Plans are essential elements and aspects of the cityscape for healthy city environment. Several reservations meant for public amenities like gardens, stadiums etc. have found to be changed over time and or neither implemented as per the development plan. Delays in Development Plan approvals are a source of waste of time, energy and resources. It is found that there is an urgent need to simplify certain policies to increase the speed of implementation. Citizens should be made aware of the importance and need of these reservations for the health benefits of the society.
Discussion:

Case study: Lakaki Udyan, Pune

The Lakaki lake in a defunct quarry situated in the midst of Model Colony, Pune was dying a slow death due to degradation. The area was secluded and was a target to many crimes. The unhygienic stagnant water body bred mosquitoes and algae. The lake was declared part of a green belt in July 1985 by the civic administration.

Lakaki lake before development, Pune

Ariel view of Lakaki Lake Udyan

Sector: 4
Area: TPS-I
Reservation Type: G-28
Reservation type G-28 of Garden space was made in the development plan of Pune for the Lakaki lake, Model Colony, Pune and which was not implemented as development of the garden for almost 20 years. Residents of the Model colony, Pune came together with local authorities to bring about the development of the Lakaki Lake garden. This added the much needed hygenic conditions to the lake, increased the aesthetic value of the area encouraging visitors to the area which in turn improved the quality of life of the local residents and warded off crime.

Appropriate use of easy to maintain materials and design elements used in the planning of the garden encourages visitors to the garden and helps keep the area clean and visually pleasant.

Conclusion
Interviews of stakeholders local resident citizens gives feedback that the open space reservations implemented on time can be a source of continuous health benefits. Land can be used as a resource as reservations and protected areas to encourage physical activities and exercise making large vacant city spaces as vibrant catalysts for social activity and protecting the microclimate and environment. Parcels of land protected and developed by reservations under the development plans can be appropriate and contextual natural remedy tool to enhance health and quality of life through planning interventions.

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