URBAN INFILL HOUSING OPPORTUNITIES IN WINDHOEK

22 JUNE 2017
Department of Architecture and Spatial Planning
Corner Beethoven and Wagner Streets, Windhoek
Integrated Land Management Institute (ILMI)

Presentation Outline

1. Introduction: the Housing Challenge in Windhoek
2. Target groups: Teachers (Public Sector Workers) and Domestic Workers
3. Windhoek’s Open Space Network and Opportunities for Residential Densification
4. Urban Infill Affordable Housing
5. Proposed NUST / CoW partnership for Innovative Housing Solutions
6. Urban Transformation: Student Works
7. Discussion
1. INTRODUCTION: THE HOUSING CHALLENGE IN WINDHOEK
Namibia’s Rapid Urbanization Rate: 1950-2050

By 2050, there will be more people living in urban areas than the total population in 2017.

By 2030, the population of Namibia will exceed 3 million.

By 2020, most of Namibia’s population will be living in urban areas.

Rural
Urban
### Housing Need per Region: 2020, 2030, 2040

<table>
<thead>
<tr>
<th>Region</th>
<th>2017-2020</th>
<th>2021-2030</th>
<th>2031-2041</th>
<th>2041-2050</th>
<th>Total</th>
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<td>119032</td>
<td>119032</td>
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<td>119032</td>
<td>477158</td>
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</table>
Annual Housing Need per Region: 2017-2030
Median house prices

Last quarter of 2015 (FNB, 2015):
N$800,000 (national)
N$1,200,000 (Windhoek)

Source: [Bank Windhoek, 2016]
2. TARGET GROUP: TEACHERS [PUBLIC SECTOR WORKERS]

- A total of 75 respondents from six primary schools in Windhoek in a period of three months.
Survey: TENURE

Table 7.2 Percent distribution of households by type of tenure status and area

<table>
<thead>
<tr>
<th>Area</th>
<th>Households</th>
<th>Owner occupied with mortgage</th>
<th>Owner occupied without mortgage</th>
<th>Rented (Government)</th>
<th>Rented (Local authority)</th>
<th>Rented (Parastatal)</th>
<th>Rented (Private firm)</th>
<th>Rented (individual)</th>
<th>Occupied rent free</th>
<th>Other</th>
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<tr>
<td>Namibia</td>
<td>464,839</td>
<td>14.2</td>
<td>56.1</td>
<td>1.4</td>
<td>2.4</td>
<td>0.5</td>
<td>2.8</td>
<td>9.1</td>
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<td>Urban</td>
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<td>37.4</td>
<td>2.8</td>
<td>3.4</td>
<td>1.1</td>
<td>4.6</td>
<td>17.3</td>
<td>10.0</td>
<td>0.4</td>
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<tr>
<td>Rural</td>
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<td>5.7</td>
<td>74.3</td>
<td>0.0</td>
<td>1.4</td>
<td>0.0</td>
<td>1.0</td>
<td>1.1</td>
<td>15.1</td>
<td>1.3</td>
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<td>Khoimas</td>
<td>89,438</td>
<td>26.3</td>
<td>33.2</td>
<td>2.2</td>
<td>2.1</td>
<td>0.5</td>
<td>4.3</td>
<td>17.5</td>
<td>13.4</td>
<td>0.5</td>
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</table>
Survey: GEOGRAPHICAL LOCATION (HOUSING)
Survey: YEARS EMPLOYED

- 1 to 2: 7%
- 3 to 5: 16%
- 6 to 10: 26%
- 11 to 20: 26%
- 21 or more: 24%
- NR: 1%
Survey: SALARY

National average wage is N$6,626/month before deductions (NSA, 2015:63)

Teachers’ national average wage is N$10,227; N$14,057 for males, and N$11,405 for females (NSA, 2015:63)
2. TARGET GROUP: DOMESTIC WORKERS

- Results represent information from 100 survey forms, out of 179 available
- All are based in Windhoek, and virtually all in the Western areas
Land and housing
Place of living
Everyday life

Time for personal matters

- Everyday
- Weekends only
- One day per week
- Two days per week
- Rarely/Not enough
- N.R.

Wake up time

Return time from work
Employment security

<table>
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<th>Duration</th>
<th>Count</th>
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<td>Less than a year</td>
<td>18</td>
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<tr>
<td>1-2 years</td>
<td>30</td>
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<tr>
<td>3-5 years</td>
<td>48</td>
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<tr>
<td>6-10 years</td>
<td>31</td>
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<tr>
<td>11-20 years</td>
<td>23</td>
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<tr>
<td>21-30 years</td>
<td>7</td>
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<tr>
<td>N.R.</td>
<td>21</td>
</tr>
</tbody>
</table>

CONTRACT

- No contract: 31%
- Written contract: 30%
- Verbal contract: 38%
- N.R.: 1%
Salary

Payment mode
- Cash: 0%
- Bank transfer: 18%
- N.R.: 76%

Payment rhythm
- Daily: 7%
- Monthly: 44%
- N.R.: 49%
Employer-employee relations
Skills acquired through employment

- None
- Improvement of existing skills
- Handyman
- Use of equipment
- Mechanical
- Joinery
- Welding
- Printing
- Mechanical
- Joinery
- Beauty
- Electrical
- Gardening
- Computer
- Bookkeeping
- Care-giving
- Cooking or baking
- Arts and crafts
- Management
- Accounting
- First aid / Medical
- Education
- Shopsteward
- Secretarial
- Hospitalit
- Debt collecting
- Agriculture
- N.R.
- Design
- Sales / Customer care
- Business
- Military
- Secretarial
- Office admin
- Laundry
3. Windhoek’s Open Space Network and Opportunities for Residential Densification
Municipal & Public Open Space

- Windhoek’s has **365 hectares** of land zoned as *Municipal* and **1062 hectares** as *Public Open Space (POS)*.
- Windhoek’s public open spaces generally have **high ecological value**;
- They are generally **not well utilized** by communities due to inaccessibility, a lack of infrastructure and resultant safety concerns;
- Generally, these plots of land are located within the built-up area and already have access to bulk infrastructure thus not requiring full servicing;
- **Bulk infrastructure** might need to be upgraded to cater for increased densities in certain cases.
Municipal & Public Open Space

- If a nominal percentage (30%) of Municipal and POS would be made available for infill housing development (assuming ecological preservation and simultaneous landscape improvement to increase community usage of the remaining areas), at least 428 hectares would become available for housing development.

- Assuming a net density of 50, 80 or 120 units per hectare (medium, high density) this land could allow for 21,400, 42,800 or 52,360 dwelling units respectively with infill development (2-4 story walk-ups).

- Such high densities would be compensated by the adjacent fully developed public open spaces for the residents’ benefit.
Property Information

FLORENCE NIGHTINGALE STR
GPS Location: Lat,Lng(-22.543 17.0521)
Parcel Number: 3088
Zoning: PUBLIC OPEN SPACE
Size(square meters): undefined

Beacons (WGS84):
17.05177648055605 -22.542739919831337
17.051888437731453 -22.542882462303883
17.051591918181543 -22.54306657421865
17.05149911847186 -22.543185026133227
17.051413495016572 -22.543321850491225
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Data

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<tr>
<th>ERF_SIZE</th>
<th>PARCELKEY</th>
<th>ZONING</th>
<th>ERFNUMBER</th>
<th>STREETNAME</th>
<th>HOUSENUMBER</th>
<th>OWNER</th>
<th>CITY OF WINDHOEK</th>
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<tr>
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<td>PUBLIC OPEN SPACE</td>
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<td>FLORENCE NIGHTINGALE STR</td>
<td>N/A</td>
<td>CITY OF WINDHOEK</td>
<td></td>
</tr>
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</table>

TENANT | N/A
DENSITY | N/A
BULK | 0
TOWNSHIP | KHOMASDAL
4. Urban Infill Affordable Housing
City-wide assessment
Identification of pilot site
Construction / PPP
Independent projects
City-wide interventions
2-4 storey walk-ups, collective spaces
Incremental building

Quinta Monroi, Elemental Chile
Collective living with accessible public space

Mexico City
Integrated Land Management Institute (ILMI)

5. Proposed NUST / CoW partnership for Innovative Housing Solutions
Recent CoW Expression of Interest: Housing

- Demonstrate technical capability, competence and relevant experience;
- Company profile and key Staff CVs;
- Details of housing solutions offered (various options may be proposed);
- Provisional cost per unit (m2) of housing solution offered;
- Information on funding solution for the said project;
- Indication of maximum funding available for project;
- Inclusivity and regard for Previously Disadvantaged Groups;
- Corporate Social Responsibility undertaking.
ILMI Land, Livelihoods and Housing Research Programme

- Institutional & Legal Frameworks for Tenure Security
- Tenure Security for Sustainable Livelihoods
- Governance and Land Administration
- Spatial Planning and Development Processes
- Transport and Infrastructure Development and Management
- Role and Function of Participatory Processes
- Space, Architecture and Culture
- Human - Ecosystems Interaction
- Development and Environmental Sustainability
- Impact of Climate Change on Land, Livelihoods and Housing
- Land and Housing Delivery Systems
- Affordability of Land and Housing in Namibia
- Taxation, Service Delivery and Equity
- Formal and Informal Property Markets
ILMI Fundamentals
Proposed Way Forward toward Affordable Urban Housing

- Establish a Memorandum of Understanding between the NUST Integrated Land Management Institute (ILMI) and the City of Windhoek to outline the proposed collaboration to explore innovative affordable housing options.
- Conduct a city-wide assessment of vacant municipal land, with an emphasis on Undetermined and Public Open Space zoning areas and development limitations.
- Assess the potential for developing ecologically sensitive yet functional public spaces paired with affordable infill housing developments.
- Co-develop a Municipal Affordable Housing Densification Programme with CoW in line with its housing delivery mandate.
- Co-develop Housing Pilot Projects aimed at the two representative target groups: Domestic Workers and Public Sector Workers.
6. Urban Transformation: Student Works

Inspired by the Riverwalk concept, Year 4 students of architecture developed conceptual urban design interventions between Goreangab and Avis Dam to transform the network of dry Riverbeds into an interconnected urban fabric by introducing housing and mixed-use infill projects, improved public spaces and transport links as well as other public amenities. The projects demonstrate opportunities for urban re-densification based on an urban design framework that would reconnect parts of the city that are currently separated, increase the residential density to allow viable public spaces to be created and increase the number of affordable housing opportunities within inner city areas.
ABOUT ILMI

The Integrated Land Management Institute is a centre of the Faculty of Natural Resources and Spatial Sciences (FNRSS) at the Namibia University of Science and Technology (NUST) committed to develop reputable and multidisciplinary research and public outreach activities in the field of land administration, property, architecture and spatial planning.

Ilmi.nust.na