Rapid Urbanization
What can land surveyors do?

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What is it all about?

<table>
<thead>
<tr>
<th>population</th>
<th>World (millions)</th>
<th>Urban (millions)</th>
<th>%</th>
<th>Rural (millions)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>6,974</td>
<td>3,632</td>
<td>52.1</td>
<td>3,341</td>
<td>47.9</td>
</tr>
<tr>
<td>2050</td>
<td>9,306</td>
<td>6,252</td>
<td>67.2</td>
<td>3.053</td>
<td>32.8</td>
</tr>
</tbody>
</table>

Source population growth:
UN, 2009, World Population Prospects (the 2008th revision), New York

Source urban/rural:
UN/Habitat, 2008, State of the world’s cities, Nairobi
Development of urban population %

Source

In emerging economies?

<table>
<thead>
<tr>
<th>Year</th>
<th>Slum dwellers</th>
<th>% of urban population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>656,739,000</td>
<td>46.1 (of 1,424,596)</td>
</tr>
<tr>
<td>2000</td>
<td>766,762,000</td>
<td>39.3 (of 1,977,289)</td>
</tr>
<tr>
<td>2010</td>
<td>827,690,000</td>
<td>32.7 (of 2,531,162)</td>
</tr>
</tbody>
</table>

UN/Habitat, 2008, State of the world’s cities, Nairobi
2012 UN, World Urban Prospects, New York tabel 'less developed countries'
Yearly increase slum dwellers

<table>
<thead>
<tr>
<th></th>
<th>persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual number increase</td>
<td>28 million</td>
</tr>
<tr>
<td>Annual number lifted</td>
<td>22 million</td>
</tr>
<tr>
<td>Increase saldo</td>
<td>6 million</td>
</tr>
</tbody>
</table>

Rural and Urban Poverty

<table>
<thead>
<tr>
<th></th>
<th>total</th>
<th>urban</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1.25 $/day</td>
<td>1,207 million</td>
<td>291 million</td>
<td>24.6%</td>
</tr>
<tr>
<td>2.00 $/day</td>
<td>2,884 million</td>
<td>752 million</td>
<td>26.6%</td>
</tr>
</tbody>
</table>


Poverty = rural until 2040

Source: IFAD, 2011, Rural Poverty Report, Rome
Need for shelter

<table>
<thead>
<tr>
<th>2050</th>
<th>number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth of population</td>
<td>2,500,000,000</td>
</tr>
<tr>
<td>Slum dwellers</td>
<td>500,000,000</td>
</tr>
<tr>
<td>Extra People need a house</td>
<td>3,000,000,000</td>
</tr>
</tbody>
</table>

Per day 96,150 houses

Source: UN/Habitat, 2005, Facts and figures financing urban shelter, Nairobi

Source: Augustinus, 2009, Improving access to land and shelter, WB/FIG

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What to do? : twin track approach

- Prevention of slum formation
- Slum upgrading

First track: Prevention

- Conventional masterplanning does not deliver livelihood for growing number of inhabitants
- Conventional planning criminalizes informal economy

Sources:
- FIG, 2008, The road to more sustainable places, FIG Publ 42
- UN/Habitat, 2009, Planning sustainable cities, Nairobi
- COPHRE, 2009, Global survey on forced evictions, Geneva
- Agustinus C, Sorlie, E., 2011, Land governance for rapid urbanization, Urban World Feb/April
- UN/Habitat, 2011, Quick Guide (Land) No. 3, Nairobi

Conventional masterplanning

- Too much a controller, not an enabler
- Too strong building standards
- Too rigid planning standards
- Too much land reservation for roads
- Too large minimum plot sizes
- Serves the elites rather than the poor
- Too complicated regulatory framework

New forms of planning

- Slum upgrading more expensive than slum prevention, so planning necessary
- Governments should take the lead
- Make land and trunk infrastructure available
- Develop services (health, education, employment)
- Create realistic and enforceable regulations and standards

(Source: UN/Habitat, 2009, Planning Sustainable Cities, Nairobi)

Examples

- Strategic spatial planning: give direction on the long term, flexible local projects, planning as coordination
  (Source: Cities Alliance, 2006, Guide to City Development Strategy CDS, Washington)
- Urban Management Programmes
Planning requires information

- **Information**  
  (Source: Sluzias, 2004, Managing informal settlements, Enschede)

- **Land information**  
  (Source: UN/Habitat, 2010, Guide to City Wide Planning, Nairobi)

- **Not only legal data**  
  (Source: Augustinus, C., 2009, Improving access to land and shelter, WB/FIG; Augustinus, C., Sorlie, 2011, Land governance for rapid urbanization, Urban World Febr. 2011; UN/Habitat, 2011, Quick guide to land, Nairobi)

- **Inclusion of socially marginalized groups**  

- **Effective street addressing**  

- **Enumeration methods**  
  (Source: Huchzermeyer, M., 2008, Enumeration as a grassroot tool towards securing tenure in slums, GLTN Working paper; UN/Habitat, 2010, Count me in, Nairobi)

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**Second track: upgrading**

- **Slums are characterized by lack of basic services** (sanitation, water, waste collection, electricity supply, surfaced roads, road lighting, rain water drainage), substandards housing, overcrowded and high density, unhealthy living conditions, and insecure tenure.  
  (Source: UN/Habitat, 2003, The challenge of slums, Nairobi)

- **Property rights are critical to sustainable approaches**, amongst better governance, financial systems and social frameworks  
  (Source: Cities Alliance, 1999, Cities without slums, Washington)
A brief history of dealing with slums

- < ’70: negligence and clearance
  (Source: UN/Habitat, 2003, The challenge of slums, Nairobi)
- Government destroyed more low income houses than they constructed.
- ’70 recognition as an urban reality that require adequate response: development self-help and sites&service programmes.
  (Source: UN/Habitat, 2003, The challenge of slums, Nairobi)
- Sites&services programmes of World Bank obstructed by absence of government policies
  (Source: World Bank, 2006, Thirty years of shelter lending)
- Political will is a major precondition
  (Source: UN/Habitat, 2003, The challenge of slums, Nairobi)

Modern slumupgrading

- Creating awareness and advocacy (monitoring system?)
- Long term political committment (reduce political unwillingness and apathy)
- Policy reform and institutional strengthening (housing, land, infrastructure, coordination between central and local government)
- Implementation and monitoring (transparency, pro poor approaches, training, community participation, attention to rent not only ownership)
- Scaling up (replication)

(Source: UN/Habitat, 2011, Quick Guides; World Bank, 2006)

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Sound information base

- Because of existence of poor land record systems and centralized information systems (Source: Fourie, C., 2001, Land and Property registration at cross roads, Habitat Debate 2001(7) 3:16),
- need for local land registers, inclusive registers, parallel registers, simplified recording of spatial representation (Source: UN/Habitat, 2004, Pro Poor Land Management, Nairobi),
- for example through LADM (Source: Augustinus, C., 2009, Improving access to land and shelter, WB/FIG)
- and the continuum of land rights (Source: 23nd Governing Council UN/Habitat Resolution on sustainable urban development through expanding equitable access to land, housing and basic services and infrastructure, 2011, Nairobi)

Land and legal security

- Insecurity tenure = major characteristic of slums
- Better governance (‘local authority’ = often slumlords or mafia)
- Granting freehold titles ≠ a solution
- Range of land rights to be recognized
- A way: group titles
- Protection against eviction = overriding priority
- Housing loans (Grameen, WB Slum Upgrading Facility)
- People have security when
  - evidence of documentation proof of tenure
  - protection from eviction
Surveyors’ contribution or

Outsiders say:
- Only 1.5 billion out of 6 billion land parcels are surveyed and recorded
- In only about 50 countries some sort of LAS exists
- Crowdsourced maps are better and quicker than official maps (Haiti?)
- Land surveyors unreasonable outdated in methods and accuracy requirements....
- Land surveyors hamper completion of cadastres...

What we can do:
- Quick and cheap land spatial information
- Master non-spatial data such as addresses, enumeration...
- Facilitate plurifom land and housing rights
- Manage land readjustment
- Master innovative planning and upgrading......
- Linking informal and formal economy
- Create tax revenues for cities
- Be a champion in system design to support all this

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Thank you
for listening.