

Surveyors are well placed both to prevent and upgrade slums in growing cities, says **Paul van der Molen**

# Right place, right time

**M**anaging the urban environment sustainably is one of the major challenges for the future, according to the UN. It says that a lack of good urban governance causes uncontrolled urbanisation and leads to slum development.

In 2011, 3.6 billion of the world's 6.9 billion people lived in urban areas (52%). In Africa, the proportion was 36%, in Asia 45%, in Latin America 79%, in Europe 72%, and in North America 82%, according to UN Habitat research from 2008.

By 2050, 6.2 billion people out of an estimated world population of 9.3 billion are expected to be living in urban areas (67%). The rural population is then expected to be three billion (32%), which is a little less than the current figure.

The growth of cities needs to be properly managed, as the development of slums is seen as a failure of management.

## Slum dwellers

In 1990, the number of slum dwellers was 656 million. In 2000, this figure grew to 766 million, and in 2010 to 827 million. Because of the general growth in urban population, the percentage of slum dwellers declined from 46% in 1990 to 39% in 2000 and 32% in 2010.

While the world's urban population grows annually by 66 million people, the number of slum dwellers rises by an average of 6 million. Every year, 28 million more people settle in slums, but 22 million leave them.

Preventing future slum formation is a matter for urban planning. Conventional urban planning, the masterplan approach, however, fails to secure appropriate standards of living for the growing number of inhabitants.

Existing zoning serves wealthier people, while unrealistic planning regulations force the poor to break the law to find shelter and survive. Conventional planning typically criminalises the informal economy and is too much a controller rather than an enabler, experts say.

## Upgrading

Upgrading slums is much more expensive than preventing them, so urban growth has to be planned and governments will have to take the lead. New forms of urban planning should seek to meet the future needs of low-income populations better by taking the following approaches:

- making land and trunk infrastructure available
- developing education, health and employment services
- creating realistic and enforceable regulations and standards.

Ways of doing so include:

- strategic spatial planning, giving direction in the long term, with flexible local projects
- planning as coordination between sectoral development plans or urban management programmes; although more planning innovation is needed.

Recently, an analysis of 120 cities by Prof. Schlomo Angel of New York University drew up a "make room for cities" proposal, not in a detailed masterplan, but by establishing expansion areas for road networks, public spaces and utility services, as well as rights to secure tenures.

Meanwhile, the UN has recommended using unconventional instruments such as land development, land pooling and land banking, value capturing and land readjustment. Until the 1970s, the usual approach of governments to slums was negligence and clearance. Since then, however, slums have been recognised as urban realities that require an adequate response. In 1972, the World Bank started programmes on self-help, sites and services projects and slum upgrading. But evaluation of these programmes showed that they were blocked by a lack of government policies on dealing with informal settlements; so, in the 1980s, the World Bank shifted its attention from upgrading to policy development.

## Land tenure security

Low-income groups' struggle for shelter is often a matter of either securing land on which to build or obtaining tenure on land that is already occupied. Insecurity of tenure is a major feature of slum dwelling.

In addition, without secure tenure, slum dwellers have no access to regular forms of credit and are forced to take loans from informal sources at high rates with short repayment times.

Security of tenure is the most important measure for improving access to adequate housing, says the Centre for Housing Rights and Evictions. It wants to establish legal security of tenure for all people and households who lack protection, ensuring that any housing rights violations by third parties, such as landlords or property developers, are prevented, and to protect tenants against unreasonable or sporadic rent increases.

There is, however, concern about granting full titles as a solution, as experience reveals that this also increases land prices, which in turn encourages landowners to sell their plots, realise the higher capital value and resume squatting.

One way to ensure that low-income settlements are sustained is the granting of group titles, provided that the community is organised.

Collective title, however, might prevent members from moving out, and encourage them to invest in their homes. So a community can choose to shift to individual ownership when, for example, a loan for acquiring the collective title is repaid.



City homes in Caracas

Formal freehold titles are not seen by slum residents as an adequate response to their understanding of tenure security. Through abiding by certain social rules in the community, they feel fairly secure.

Protection against forced eviction is therefore an overriding priority, making the provision of property titles possible over the long term.

Comprehensive and regularly updated housing, property and land registration systems are a crucial element of securing tenure, although land registration does not automatically provide such security. Besides, registration processes might favour wealthier people and marginalise the poor. The establishment of other forms of land inventories, which simply record claims of landownership and property rights without the legal authority to determine them, can be one solution.

### A role for surveyors?

A well-functioning spatial information system is one of the most important prerequisites in providing land to house the poor. Without a clear land information system, planning for a city's roads, infrastructure networks, social amenities, public facilities and housing becomes difficult. Spatial information systems that support rapid urbanisation will therefore include spatial, economic, social, administrative and legal data. But because most countries have incomplete land registration and land record systems, both land and tenure data should be included that does not depend exclusively on existing legal data, but also draws on social or community relationships, for example.

In general, better information should help local and central government deal with increasing demand for services, land and infrastructure. Land information management (LIM) and broader spatial information management (SIM) offer a solution through the use of technical innovations in data collection, integration, processing and management and appropriate spatial data infrastructures.

Surveyors should not only address spatial data but also attributive data (that is, non-spatial data), to gather meaningful information. Other methods should also be mastered, such as effective street addressing and enumeration methods.

Surveyors should exploit their expertise in the newest technologies when undertaking data acquisition, processing and presentation, to establish a cost-effective information supply for citizens and decision-makers. Surveyors' experience in maintenance can also help safeguard the investment in land information systems. A crucial weakness of programmes to upgrade slums in the past has been the failure to ensure that

there is ongoing maintenance and upscaling. When governments refrain from taking action, participatory mapping and cadastres can offer the solution.

### Better security

Land tenure security remains a cornerstone of planning for and upgrading slums. This does not have to take the form of fully fledged property titles, but can constitute, for example, simple anti-eviction rights, or collective urban tenure that might develop into individual tenure at a later stage.

Poor land record systems and centralised information systems present a major problem. However, it can be addressed by approaches such as local land registers, effective linkages between central and local information and functions, more inclusive registers, parallel land registration, digital access and simplified recording of spatial representation.

A good example is the concept of the International Federation of Surveyors (FIG)'s so-called 'fit-for-purpose' land administration system, paving the way for cheap, quick information systems, and the land administration domain model as a flexible, extensible tool.

The implementation of land readjustment could benefit both the community and local government, enabling win-win situations. While the processes are complex and demanding, surveyors can gain expertise in both the urban environment, in the fields of land readjustment and land banking, and in the rural environment, in land consolidation and land pooling.

### Conclusion

Surveyors have the capacity to contribute significantly to governance of urbanisation processes, specifically in slum prevention or slum upgrading, with a good fit between societal demand and professional supply. ●

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Paul van der Molen is Emeritus Professor at the University of Twente (ITC), Enschede, the Netherlands.  
[p.vandermolen-2@utwente.nl](mailto:p.vandermolen-2@utwente.nl)



Related competencies include **Planning, Mapping, Cadastre and land management**