



**RESTRUCTURING THE
TOWNSHIP PHYSICAL
ENVIRONMENT**

FOCUS OF THE MODULE

The physical and spatial (locational) characteristics that prevent townships from developing

Levels of intervention:

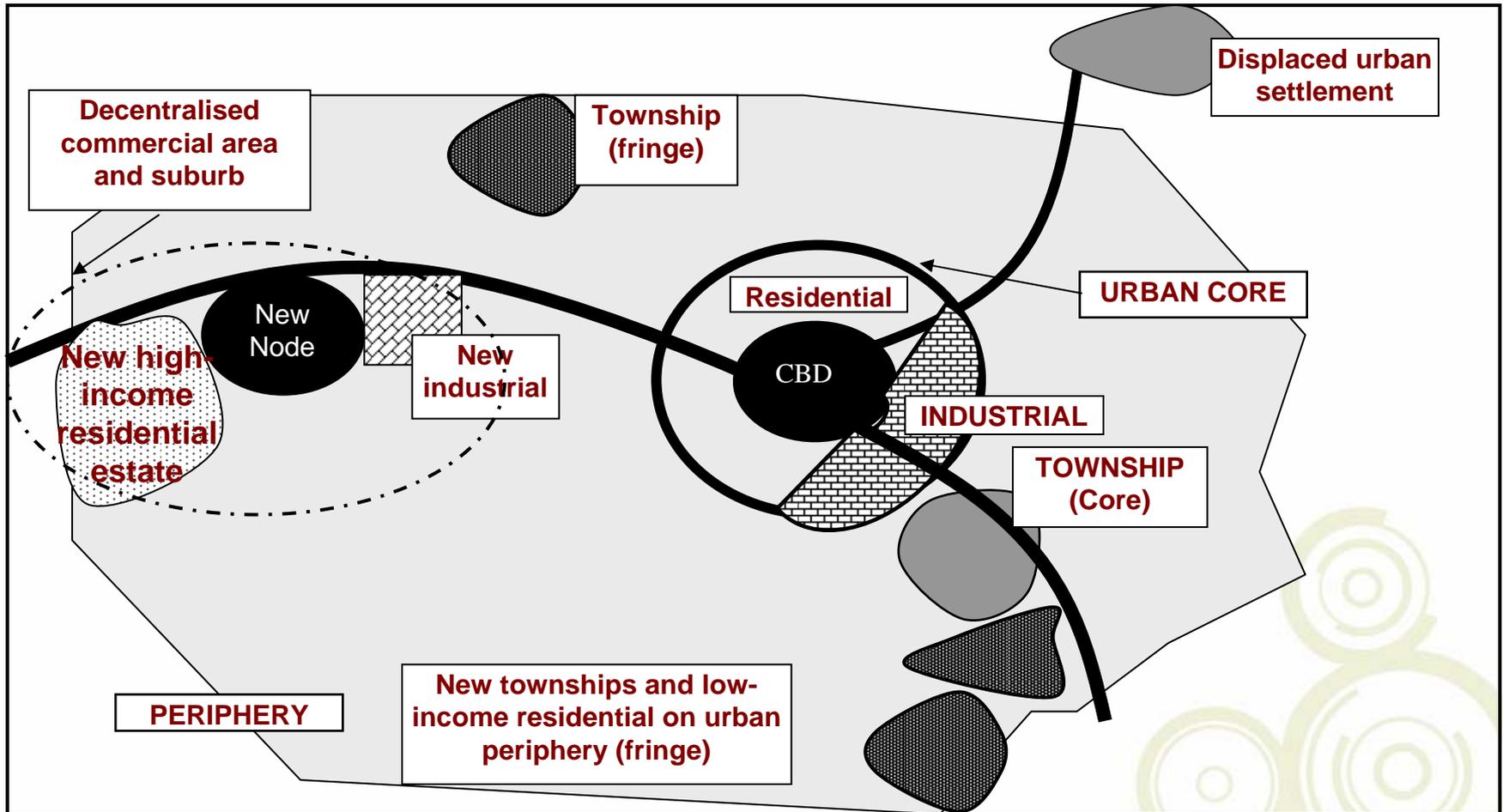
- Things that can be done **outside** the township to improve its locational advantages relative to the broader economic system
- Things that can be done **inside** the township to improve the economy of the township as a whole

SOUTH AFRICA'S URBAN SYSTEM

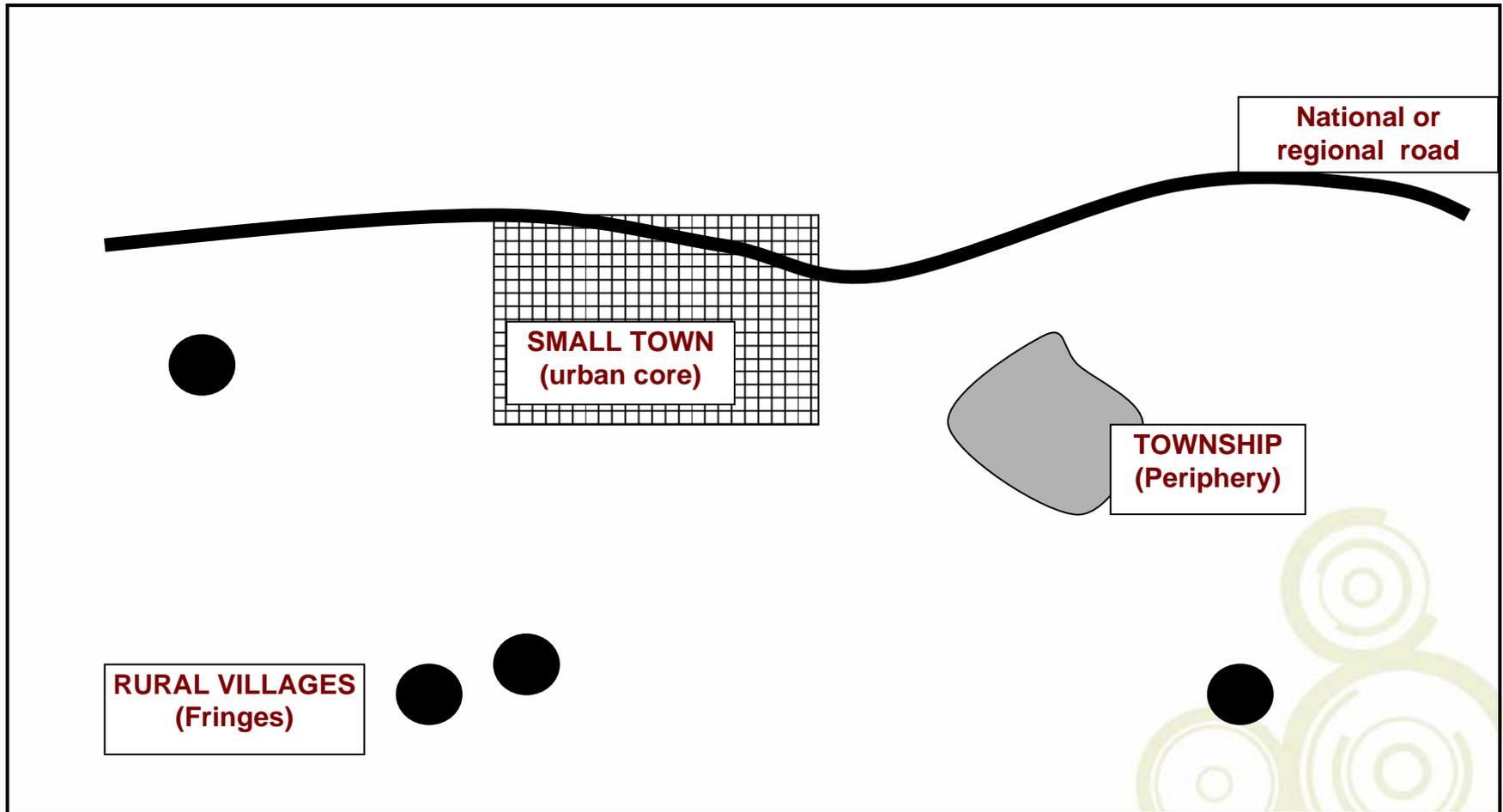
A typical city or town contains a mix of the following elements:

- Core and frame (fringe/periphery)
- Decentralised commercial centres and suburbs
- Industrial areas
- Upper- and middle-income residential neighbourhoods
- Declining residential neighbourhoods
- Townships and their post apartheid additions

Typical elements in a city context



Typical elements in a rural/small town context



IMPROVING SPATIAL ADVANTAGE

Common problems

- Peripheral location - initial location far from economic opportunities
- Polarised growth - locational disadvantages reinforced through new growth patterns
- Unidirectional transport flows - inefficient, expensive to operate public transport and movement systems
- Poor transport connections between townships and new economic nodes

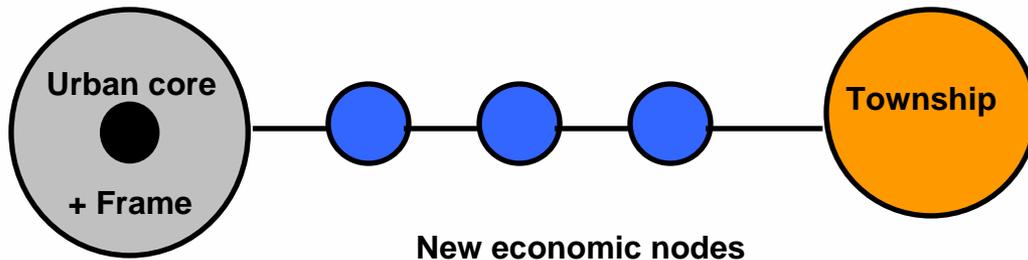
Strategies for improving spatial advantage

- Channel area growth into areas that strengthen township locational advantages
- Attract high-order facilities and activities into nodes adjacent to the township (e.g. Bridge City)
- Improve transport linkages

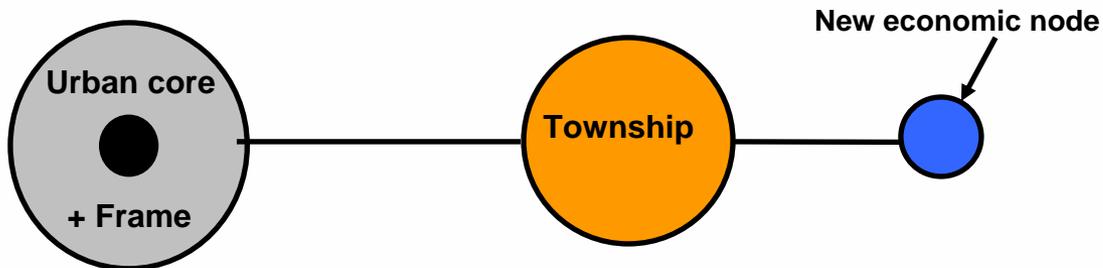


Strategies for improving spatial advantage

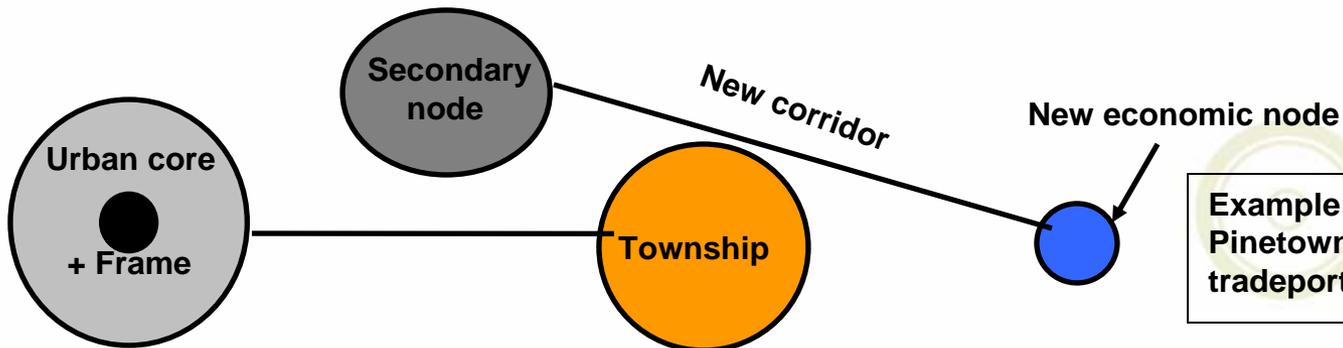
Urban growth channels



Examples: KwaMashu, River House Valley, Bridge City



Examples: Motherwell, Coega



Example: KwaMashu, Pinetown to Dude tradeport corridor

IMPROVING THE BUILT ENVIRONMENT AND PUBLIC SPACES

Common problems

- Dispersed and restricted movement within the township
- Low-density built form and overcrowding
- Lack of range and quality of social facilities and public places
- Limited range of economic infrastructure and services
- Limited range of residential choice
- Insecure or unsafe spaces
- Lack of identity and 'sense of place'

Strategies for improving the built environment

Key objectives:

- Enhance ease of movement within a township and between a township and town
- Extend the mix and improve the concentration of land uses and activities
- Improve the capacity of the township land, infrastructure and buildings to adapt to different uses over time

Strategies:

1. Identify, plan and promote activity routes
2. Establish a hierarchy of nodes associated with activity routes
3. Improve the quality of public spaces
4. Promote residential infill
5. Crime prevention through environmental design



Strategy 1: Identify, plan and promote activity routes

Key objective:

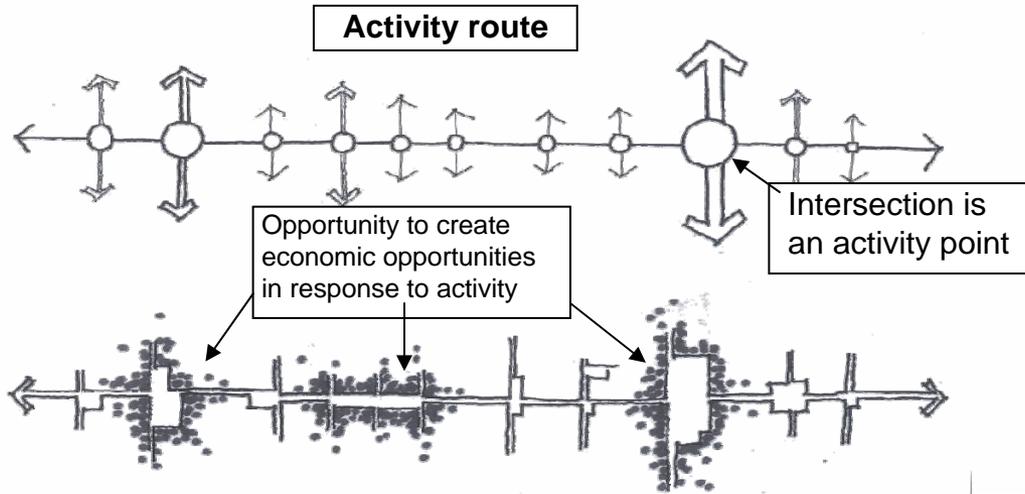
- Integrate townships into the mainstream of area economies, to promote both access to the opportunities that exist in core areas and investment in townships

Public-sector interventions required:

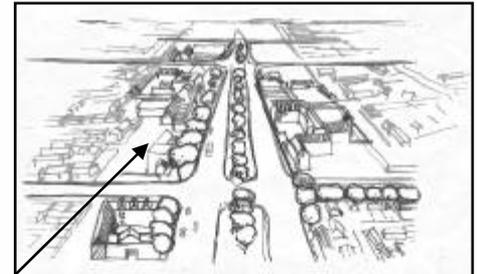
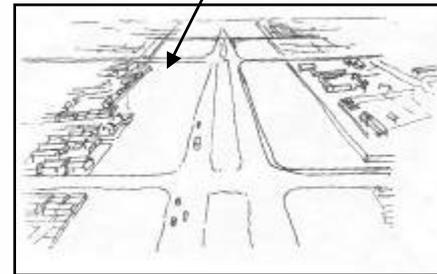
- Rationalisation of road reserves
- Redesign of roads within the road reserves
- Landscaping and 'street furniture'
- Improving public transport along activity routes



Activity routes



Road reserves are wasted space if not needed



By using the wasted space for infill development (and calming traffic) development opportunities can be created

Strategy 2: Establish a hierarchy of nodes (associated with activity routes)

Features of urban nodes:

- A concentration of activities and land uses (commercial, housing, public space and facilities)
- Best located at points of the highest accessibility
- Should be well serviced by public transport and easy to get to
- The size of a node (planned or existing) depends on its location and accessibility
- The best locations are sought by high threshold businesses or activities

Strategy 2: Establish a hierarchy of nodes (cont)

Key objectives:

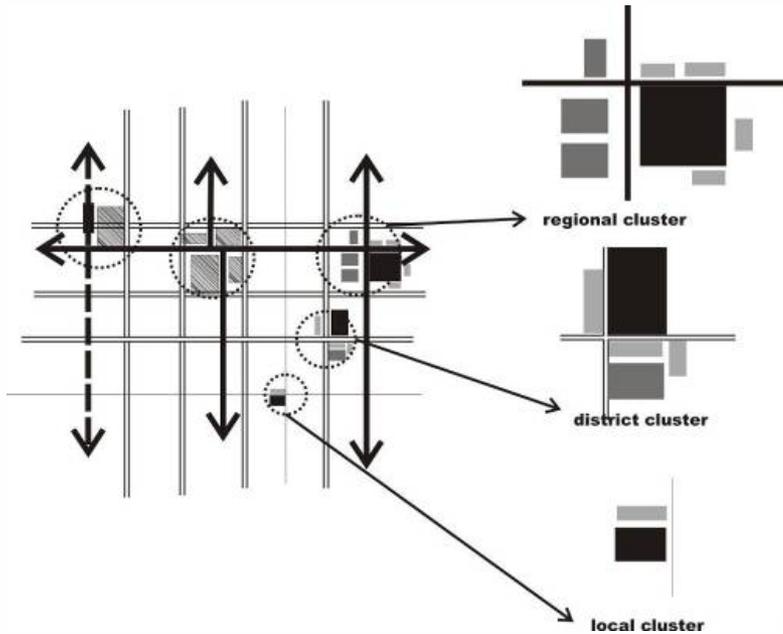
- Extend the range and quality of social facilities and public spaces
- Address problems of low-density built form and overcrowding
- Support development of economic infrastructure and services
- Contribute to safer public spaces
- Develop a 'sense of place'
- Encourage variety in built forms

Public-sector interventions required:

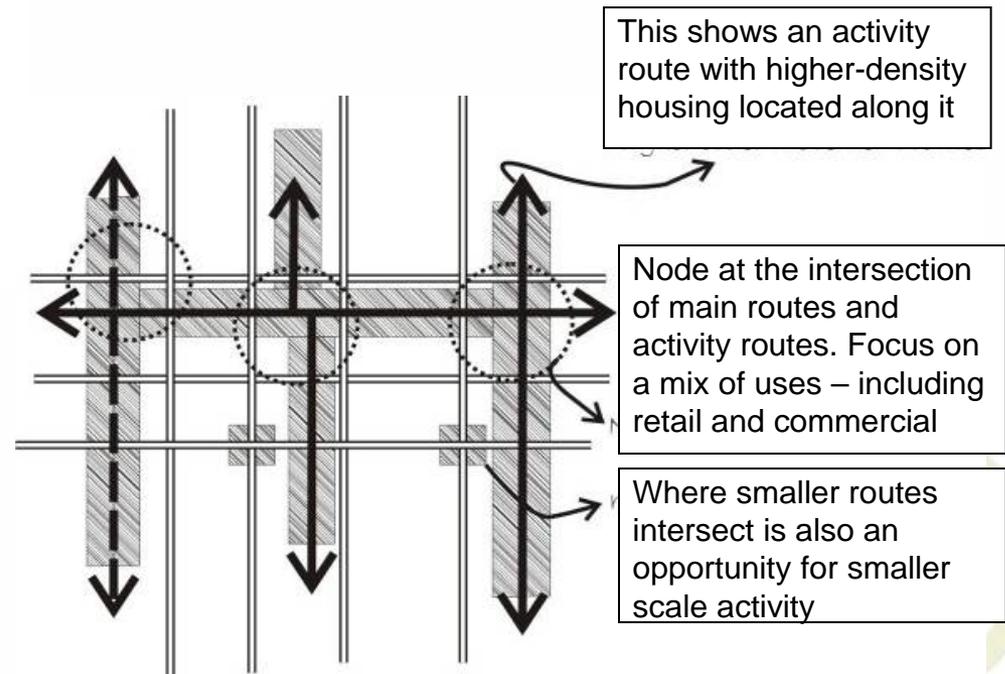
- Transportation-related interventions through the use of modal split points
- Clustering public facilities at activity nodes
- Reinforcing nodes with high-density residential development
- Reinforcing nodes with appropriate economic infrastructure



Clustering public facilities



Reinforcing nodes



Strategy 3: Improve the quality of public spaces

Common problems:

- Lack of meaningful investment of new public open spaces
- Inadequate maintenance of existing open spaces

Key objective:

- Urban public spaces (streets, squares, promenades and green spaces) should act as an extension of the housing unit, providing space for social and economic activities

Public-sector interventions required:

- Establish an integrated open space system
- Establish a hierarchy of public spaces
- Ensure that key design principles of scale and enclosure are applied



Strategy 4: Promote residential land infill

Key objectives:

- Attract and retain middle- and upper-income residents in townships by providing quality and variety of housing
- Create property investment opportunities within the township for residents and entrepreneurs
- Promote community safety by eliminating dead space and promoting surveillance
- Improve thresholds for economic and social services

Public-sector interventions required:

- Provide a range of housing types
- Release land for development by the private-sector



Strategy 5: Crime prevention through environmental design

Key objectives:

- Design of places and spaces to maximise surveillance
- Redevelopment of unused open spaces with housing and other facilities which enable active use throughout the day
- Maintaining public spaces to create a sense of pride and ownership (e.g. ensuring weeds and rubble are cleared)
- Demolishing or re-using vacant and abandoned facilities

Public-sector interventions required:

- Urban design interventions that promote passive surveillance
- Promote functional or used spaces - vacant or underutilised space should be eliminated
- Install lighting to reduce opportunities for crime
- Promote pedestrian-friendly neighbourhoods



CONCLUSION

- The broad principles discussed in this module would apply to a township in a large metropolitan area as well as a township in a rural location. The nature and scale of the interventions would change, but not the underlying principles.
- There are no quick fixes. Change in the built environment takes time. Urban development practitioners must be patient. In this context, a clear and well motivated development framework can act as a guide over time to ensure that decisions continue to reinforce earlier development directions.