Informal Settlements Fire and Flooding Risk Reduction Strategy

Presented at the DMISA Western Cape Provincial Workshop July 2005

Presented by: G Pillay
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Produced by Johan Minnie, inputs by Geoff Laskey, Chris Konings, Leigh Sonn UCT – DiMP.
The problem…
Statistical and graphical representation

- MANDISA Project of the University of Cape Town – Disaster Mitigation for Sustainable Livelihoods Project (DiMP)
- Collected information for the period 1990 – 2004 on fire incidents from various sources
- Presenting the information in a format that assists decision-making is important
Informal dwelling fires 1990 - 2004

Notes:
• First-cut at data representation
• Oostenberg area under-represented
• Does not show time

Map produced by UCT - DiMP
Informal dwellings destroyed and damaged by fire, 1990 - 2004

Map produced by UCT - DiMP
The trend line in the above graph shows an increasing number of fire incidents occurring.
### Effect of local government restructuring on data collection

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
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<tbody>
<tr>
<td>1996</td>
<td>First phase of restructuring of local government: “Unbundling” 18 local authorities reduced to 6 local councils and 1 metropolitan council</td>
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<tr>
<td>2000</td>
<td>Second phase of restructuring of local government: “Unicity” 7 Councils reduced to 1 “Unicity” with 7 administrations / holding structure</td>
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<tr>
<td>2005</td>
<td>Final implementation of restructuring at City of Cape Town 1 Administration</td>
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### Effect of information management on data collection

- Fragmented, non-standard data capturing
- Lack of information sharing
The number of informal dwellings affected refers to those that are either damaged or destroyed in fire incidents.
Contextual information

- Abolition of influx control in 1980’s led to accelerated urbanisation
- Local authorities were not adequately resourced to deal with urbanisation
- Resulted in uncontrolled informal settlement on marginal land close to economic and transport opportunities
- Due to a lack of provision of housing and services, many Cape Town communities in informal settlements are affected by fires and flooding
- Many different factors make informal settlements vulnerable to flooding and fires
- Government is aiming to accelerate the provision of dignified housing and reducing unplanned high-risk informal settlements. This will have a positive impact on reducing fire and flooding risk.
- However, the situation will not change overnight - therefore every effort must be made to reduce the current vulnerability to flooding and fires of informal settlement communities.
Shared City Goal

- To reduce the risk and the impact of flooding and fires in informal settlements

- This conforms with the Disaster Management Act, where the goal is to firstly prevent disasters from occurring and secondly to soften the impact of those disasters that cannot be prevented
The multidisciplinary approach to solving the problem…
Informal Settlements Fire and Flooding Risk Reduction Strategy

Reducing the risk

- Servicing informal settlements and upgrading informal settlements (Basic Services)
- 10 Year Human Settlement Plan of the City
- N2 Gateway Housing Project
- Public awareness and education
- Monitoring and enforcement
- Multidisciplinary risk reduction planning and management
- Integrated development planning

Reducing the impact

- Public awareness and education (Risk Communication)
- Ensuring fast and efficient response by emergency services and other government departments (Integrated Planning)
- Multidisciplinary response planning and management (Co-ordination)
Responsibilities

Risk Reduction
- **Line function** responsibility (e.g. Stormwater / Fire / Solid Waste)

Disaster Risk Management
- can play an **advocacy, co-ordination and facilitation** role
- **support** the line function in **risk communication**.
- facilitates joint **multidisciplinary risk reduction planning** (e.g. Flooding risk reduction and response plan) linked to the IDP.

Response
- **Line function** responsibility (e.g. Stormwater / Fire / Solid Waste)

Disaster Risk Management
- **co-ordinates** multi-disciplinary **response**
- establish and facilitates **joint operations** and **decision-making and social relief**
- monitors disaster **response efforts**.
Key instruments of the strategy

- Public awareness and education
- Response co-ordination
- Servicing informal settlements and upgrading informal settlements (Basic Services)
- 10 Year Human Settlement Plan of the City
- Integrated development planning
Public Awareness and Education: The Aware and Prepared Project

- The project aims to reduce risk through public awareness and education

- To facilitate community-based risk assessments and community-based disaster risk reduction plans

- Constant monitoring and improvement

- Resource materials:
  - Pamphlets in 3 languages
  - Posters and laminated posters in 3 languages
  - Laminated discussion cards with messages on back in 3 languages
  - Video
Aware & Prepared

The Strategy

- Pragmatic approach / Immediate
  - Public education and awareness using generic messages based on best available information and mass communication media, aiming to change behaviour and attitudes through marketing methodology

- Best-practice approach / Medium to long term
  - Recognise differences in community risk profiles
  - Develop messages based on community-based risk assessments, historical risk information and scientific risk assessments
  - Plan ways of communicating the messages through multiple channels, including partnerships
  - Build capacity in the communication channels
  - Create an integrated risk communication plan of action for a community
  - Implement the community awareness and education plan
  - Monitor and evaluate throughout
  - Ideal: Community-based disaster risk reduction plans
Aware & Prepared
Channels of communication / education

- Disaster Risk Management staff
- NGO’s and CBO’s who are well-placed and who volunteer their services
- Community development workers
- Teachers / schools
- Provincial and local government employees
- Councillors and community leaders
Training volunteer trainers: Sir Lowry’s Pass Village & Strand
Aware & Prepared

Linking with Provincial projects

- PGWC TEAM Project - a public education and risk reduction project developed with input from the City of Cape Town.

- The TEAM project will add resources to the City’s public awareness, education and risk reduction efforts.
Community focus group discussions
Hazard Prioritisation
Community risk mapping – towards developing a community risk reduction plan
Response Co-ordination

Disaster Risk Management:
- Emergency Notification
- Mobilisation of resources
- Assessments
- Joint planning and implementation
- Situation reports and media liaison
- Monitoring and follow-up
Servicing informal settlements and upgrading informal settlements (Basic Services)

- Project manager appointed
- Audit of informal settlements (number, conditions, level of services determination)
- Installation of basic and rudimentary services to a predetermined level to reduce risk:
  - Running water / taps
  - Sanitation services (toilets, refuse removal)
  - Building of access tracks for emergency and utility vehicles
  - Electricity prepaid dispensers installed
  - Basic stormwater system (gullies and furrows)

- Where informal settlements were situated on privately-owned land, the City had to purchase the land in order to service and upgrade
10 Year Human Settlement Plan of the City

- To reduce housing backlog which currently stands at 260,000 registered families
- 64% of capital expenditure in 2005/2006 financial year set aside for Sustainable Human Settlements Plan
- A collaborative effort between National Department of Housing and PGWC Housing Department for this national pilot project
- Seeks to transform informal settlements along N2 from CT International Airport to District 6
- Informal settlements and backyard dwellers will be provided for
- Housing opportunities:
  - Social rental housing
  - Subsidy houses owned by occupants
Integrate Development Planning

- Requirement of Municipal Systems Act, 32 of 2000
- Chapter 5 is dedicated to integrated development planning
- Core components of an IDP
  - Municipality’s long-term and critical development vision
  - Assessment of existing levels of development of municipality
  - Identifying communities without access to basic services
  - Spatial development framework, including guidelines for land-use management
  - Applicable disaster management plans
- Political change in governance of the City of Cape Town since last local government elections (2000) has impacted on the Council’s transformation process.
- This in turn has impacted on the desired alignment between the IDP process and Disaster Risk Management Plans not being realised.
Conclusion

The solution lies in a multidisciplinary approach using all available instruments (community input, legislation, governmental intervention, research institutions, methodologies, etc) to reduce the risk of fire and flooding in informal settlements.