

### Catalysing self-sustaining sanitation chains in informal settlements – 3K SAN



www.surrey.ac.uk

# **3K-SAN project**



- European funded multi-disciplinary research project
  - University of Surrey
    - Civil and Environmental Engineering (Steve Pedley & Katrina Charles)
    - Law (Rosalind Malcolm & Thoko Kaime)
    - Centre for Environmental Strategy (Jonathan Chenoweth)
  - Makerere University (Uganda)
  - Institute of Policy Analysis and Research (Rwanda)
  - Victoria Institute for Research on Environment and Development (Kenya)





- In the slum settlements of African cities limited progress has been made with sanitation provision
- Past research has shown a willingness of the poor to pay for sanitation, but:
  - extent of willingness to pay is not known
  - models are needed that can ensure sanitation chains are sustained in the medium-term

# **3K-SAN project**



- Project is analysing regulatory frameworks, financing and marketing strategies for sustainable sanitation chains in informal settlements of:
  - Kigali (Rwanda)
  - Kampala (Uganda)
  - Kisumu (Kenya)

#### Three main areas



- Demand stimulation will address the complexity of the householder's decisionmaking process
- Market adaptation will assess the sanitation labour and materials supply markets and finance options
- **Governance** will cover policies, regulation and enforcement, as well as the role of socio-cultural norms in sanitation.

#### **Case studies:**



#### – Kigali:

- Gatsata
- Kimisagara
- Kampala
- Bwaise III
- Namuwongo-Soweto
- Kisenyi
- Kisumu
- Nyalenda B
- Manyatta B
- Obunga



### Kigali:





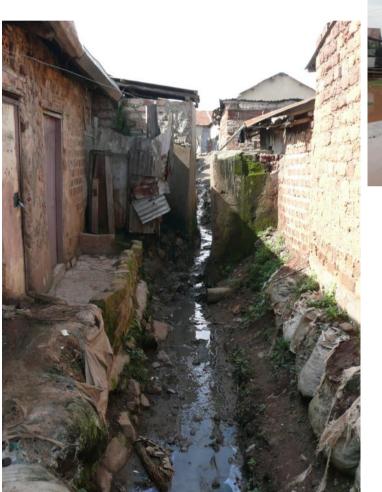






#### Kampala:



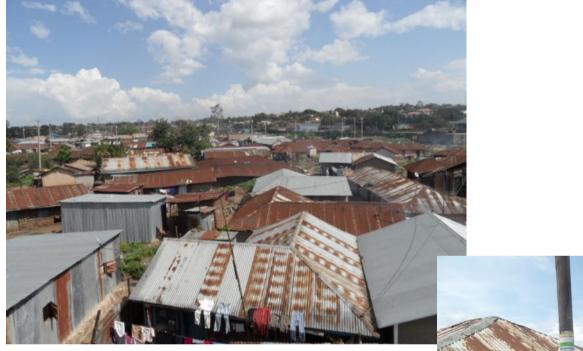






#### Kisumu:







# Methodology



- Completed:
  - Transect walks
  - Survey of 5,600households

Household surveying in Kimisagara, Kigali

- On-going and planned:
  - Stakeholder interviews
  - Stakeholder workshops have been undertaken in the eight study sites
  - Focus groups

www.surrey.ac.uk

#### Methodology



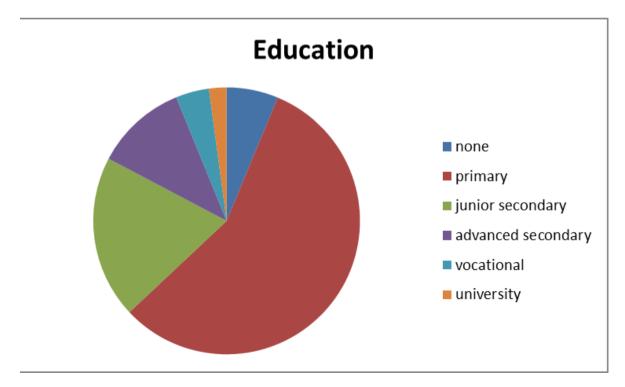




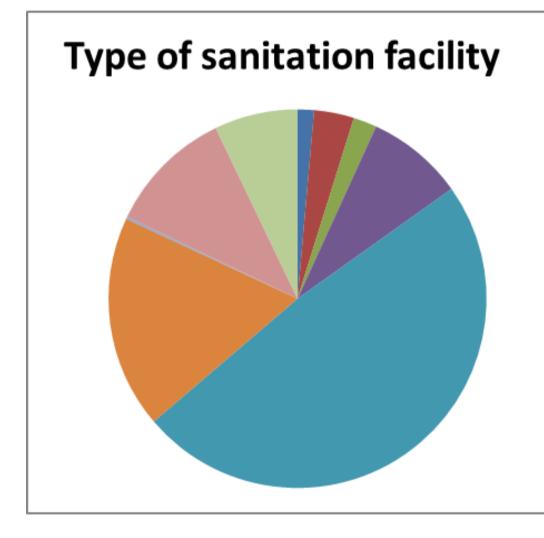


www.surrey.ac.uk

- Socio-economic characteristics of study areas: -79% tenants
  - -65% of respondents self-employed







- flush toilet connected to sewerage system
- pour flush connected to septic tank
- pour flush to elsewhere
- a ventilated improved latrine (VIP)
   nit latring with a slab
- pit latrine with a slab
- open pit latrine without a slab
- compositing toilet
- shared/public toilet
- open defecation



- Problems vary by city:
  - 39% in Kigali using open pit latrine without a slab
  - 41% in Kampala using a public or shared toilet
  - 17% in Kisumu practice open defecation and
    15% using open pit latrine without a slab

None of these considered improved sanitation



- 32% report that their sanitation facilities are not safe for all household members
- 66% use a shared facility, with 32% reporting a lack of privacy
- Other problems frequently reported:
  - Smell (and insects)
  - Distance from dwelling
  - Toilet not always available when needed
  - Difficult to clean
  - Flooding



- 40% of households said they had an account with some sort of financial institution
  - 62% in Kigali
  - -43% in Kampala
  - 16% in Kisumu
- 36% say they are saving something each month



- 42% of respondents said materials for constructing sanitation facilities were available but over half said prices were high
  - 39% willing to pay for sanitation installation but money a problem for more than half
  - While materials were available, pit latrine emptying, waste transport, waste treatment or waste disposal services were less readily available



- Lack of space and topography / high water table also presented significant barriers to construction
  - Slums often on very steep land in Kigali
  - Slums often built on swampy ground in Kampala







- Responsible for installing sanitation facilities:
  - 67% said it was the landlord
  - 8% did it themselves
  - 11% paid someone
  - 5% said government / NGO



- Respondents showed high levels of awareness of health and hygiene issues relating to sanitation
  - 94% said health and hygiene issues important in influencing their preferred choice of sanitation
  - But only 19% said they were educated on sanitation improvement, such as construction, cleanliness, etc.



- All 3 are signatories to international conventions
- Only Kenya has enacted right to sanitation Article 43 1(b) Constitution 2010:

"Every Kenyan is entitled to adequate standards of housing and reasonable standards of sanitation."

Note Article 22: access to justice

 Uganda and Rwanda have non-specific constitutional provisions



- But no review of legislation in Kenya to implement constitutional right
- However, active litigation
- And note problems of land tenure issues eg Kampala affecting rights of owners, occupiers etc to build sanitation facilities
- General absence in all 3 countries of specific provisions on sanitation – reliance on broad statutory obligations

#### Future work:



- On-going and planned:
  - Stakeholder workshops have been undertaken in the eight study sites
  - Stakeholder interviews
  - Focus groups







- Significant differences between case study cities in terms of key issues and problems
- Health and hygiene widely understood
- Better enforcement of sanitation regulations needed
  - Need focussed regulations and standards which are achievable otherwise enforcement counter-productive

#### Conclusions



- Business models needed to ensure the supply of sanitation services to the poor, such as pit latrine emptying
  - Pit emptying equipment suitable for slums required
- Education required need for it to be socially unacceptable for landlords not to provide adequate sanitation
  - Provision of high quality public sanitation needed where appropriate

#### Conclusion



- Despite a range of barriers existing, low incomes are the single biggest constraint to improved sanitation
  - Need for economic empowerment of poor communities
  - In the short term government needs to provide greater resources for the very poor