



# Reliability of data on slums

Summary of discussions during  
break-out session C





- How reliable do the spatial and statistical data on slums have to be for policy development and decision making (UN Habitat, city level)?
- Can this be quantified and can the costs benefits associated with the required level be assessed?
- Do the current approaches to slum data extraction for VHR images meet the required levels and can they be improved and if so how?



# Reliability measures

- Quality of data
  - Positional accuracy
  - Attribute accuracy
  - Semantic precision
- Availability of data
  - Temporal precision (lineage, ability to produce new information)
  - Completeness
  - Representativity



# UN Habitat experience I

- For water & sanitation more than 30 years of experience with demographic surveys from different countries in Africa & Latin America and Asia
- Less experience for questions related to durable housing:
  - For information related to roof, walls & floor enough experience, but not related location data



# UN Habitat Experience II

- Data used by UN Habitat is mainly coming from national statistical offices
  - Quality control is crucial for each data set
  - All data is checked for plausibility
  - In case of problems, it is possible to go back to the source and ask for verification
  - Common problems are an unclear delineation of borders or ambiguous definitions
  - If no improvement is possible, dataset or variables are not included
  - Mostly marginal errors (approx. 95% confidentiality)



# Reliability of EO based data

- Advantage of remote sensing
  - Synoptic overview (if data coverage is sufficient)
  - High positional accuracy
- Problems when combining different data sets



# Reliability - Recommendation

- If information of provided, it is crucial to make known the uncertainty,
- Decision makers are then able to evaluate the value of the information



# Quantification of costs

- At this point the quantification of costs and benefits is difficult, because it is not yet clear, what remote sensing can provide
- Rough cost estimates
  - Household survey approx. 30.000 \$
  - Community survey approx. 5.000 \$
  - VHR data 10\*10 km approx. 2000 \$
- Proposal:
  - Analysis of the 30 test cities
  - Evaluation of added value compared to data and analysis costs



# Do we meet the requirements?

- No:
  - Enumeration of people living in deprived households
- To some extend:
  - Identification of slum areas
  - Information related to the quality of housing (density, open spaces, infrastructure)
- Research on (global) EO based slum indicators is necessary!!!