

# Coastal Vulnerability and Migration to Cities: Implications of Climate Change for Bangladesh

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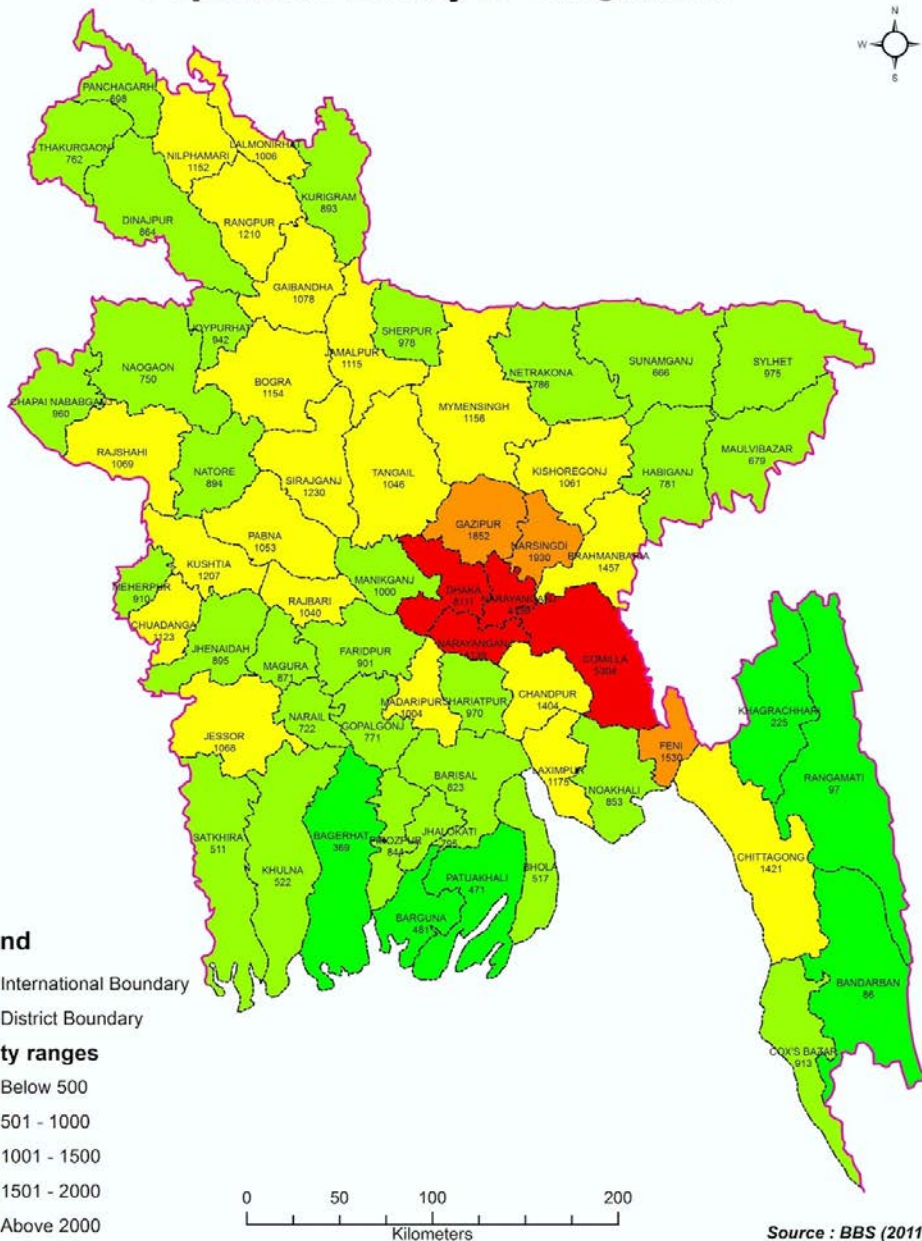
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## Population Density Of Bangladesh

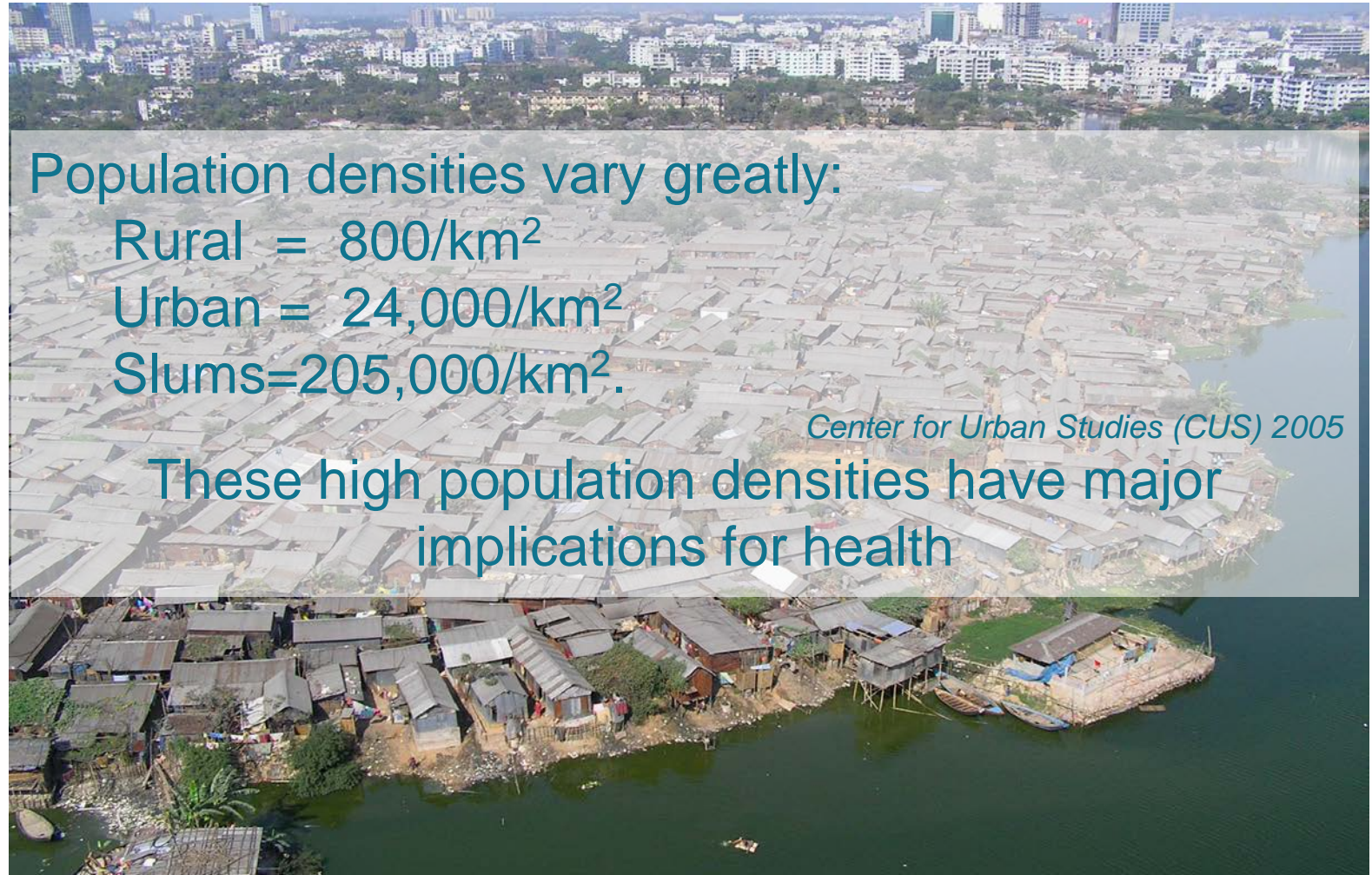


# Bangladesh

- Low lying deltaic country with ~160 million population
- One of the most densely populated countries in the world
- Rapid population growth
- Two-thirds of the population growth is taking place in urban areas due to migration



# Urban slums occupy one third of City Corporations now, but growing twice as fast as non-slums



Population densities vary greatly:

Rural = 800/km<sup>2</sup>

Urban = 24,000/km<sup>2</sup>

Slums=205,000/km<sup>2</sup>.

*Center for Urban Studies (CUS) 2005*

These high population densities have major  
implications for health



# Climate Change Associated Risks in Bangladesh

Bangladesh is one of the most climate vulnerable countries in the world

- Deltaic plains of the Ganges, Brahmaputra Meghna river
- Suffer from acute climate events – floods, droughts, cyclones
- Long-term environmental degradation → salinization and soil degradation
- Effects are likely to be exacerbated by climate change & sea-level rise (SLR)



# Climate Change and SLR in Bangladesh

SLR in Bangladesh coast over the 30 years is 6-21mm/year with much higher SLR rise in recent years.

- 1 meter SLR would cause the loss of approximately 30,000 km<sup>2</sup> (1/5<sup>th</sup> of land area) to permanent inundation
- Natural disasters along with SLR are projected to be a major reason for migration from coastal regions in coming years.

# Human Response to Climate Change and SLR

## Two types

1. Staying in the same location- whatever may be the impact and scale of vulnerability.
2. Migration to other areas – usually peri-urban and urban cities.



# Objective and Methodology of the Study

## Objective

To explore the role of environmental factors in rural to urban migration

## Data Source

Nationally representative Bangladesh Urban Health Survey (BUHS) 2013, supplemented by in-depth exploration of selected migration cases due to environmental reason

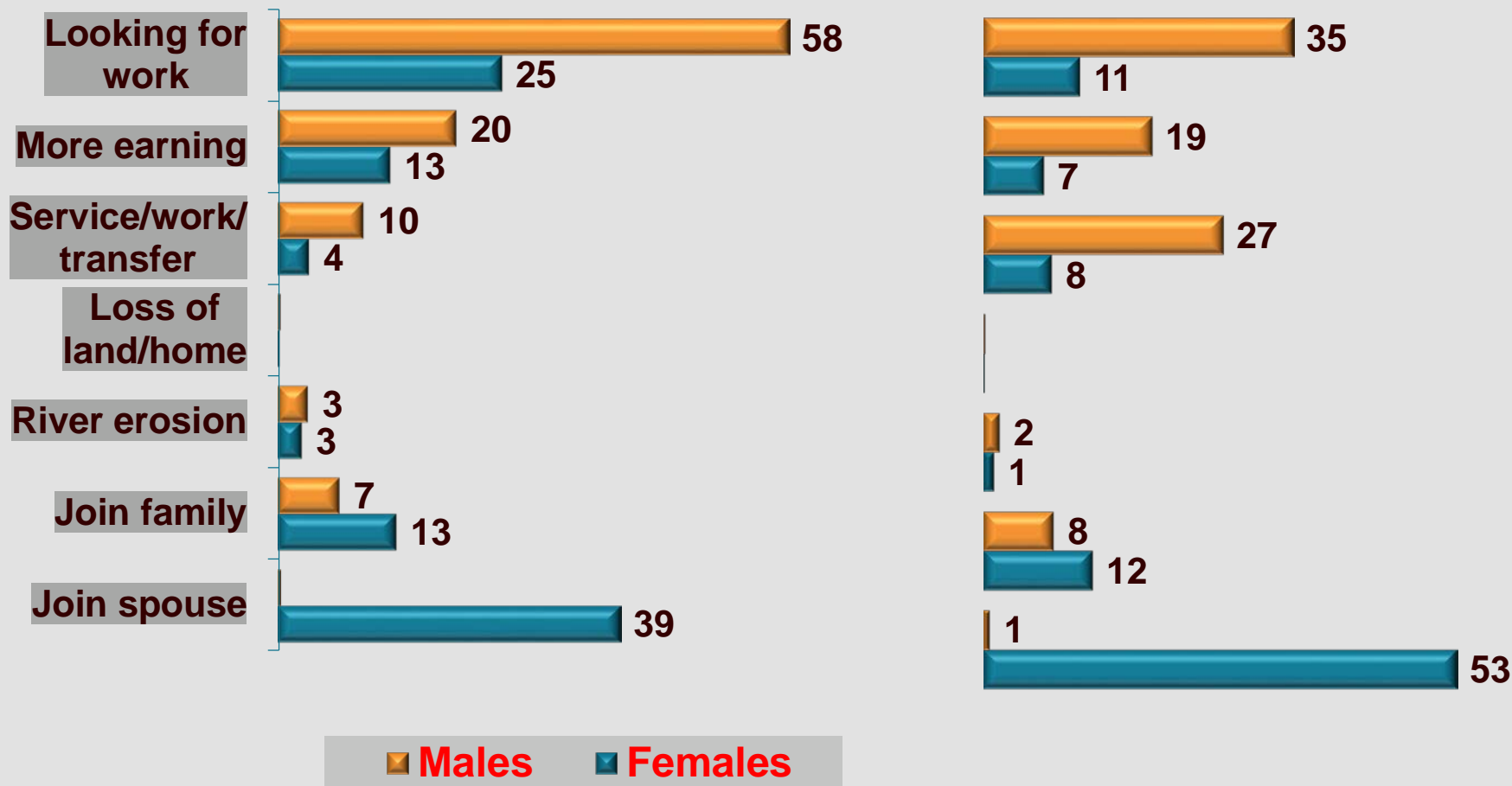
## Sample Size

- Survey of 53,000 households
- Case studies: 20 male migrants from urban slums

# Men are most likely to migrate to look for work; women are most likely to migrate to join family

Percent distribution of reasons for migration (Slums)

Percent distribution of reasons for migration, (Non-slum)





## Process of migration, as revealed through in-depth interviews, but not fully captured by the survey

Underlying process of migration of climate affected families:

- Environmental events in coastal villages such as SLR, flooding, river erosion, cyclones, damaged agricultural lands, reduced crop/fishing yields has negative impacts on livelihoods.
- These events pushed families into joblessness and poverty, however, ecological causes were not reported as the prime force triggering migration.
- Loss of livelihoods was reported as the driving force for rural to urban migration.

# Conclusion

- Extreme weather events and SLR are triggering migration from coastal areas; along with other environmental drivers of change.
- Unless carefully designed, typical survey questions do not fully capture the complexity of migration process.
- Qualitative in-depth studies are useful to understand the migration process.
- Further studies with well established tracking system is required to understand vulnerability of environment and climate change migrants for adaptation interventions.

